

# **America's Sheep Trails**

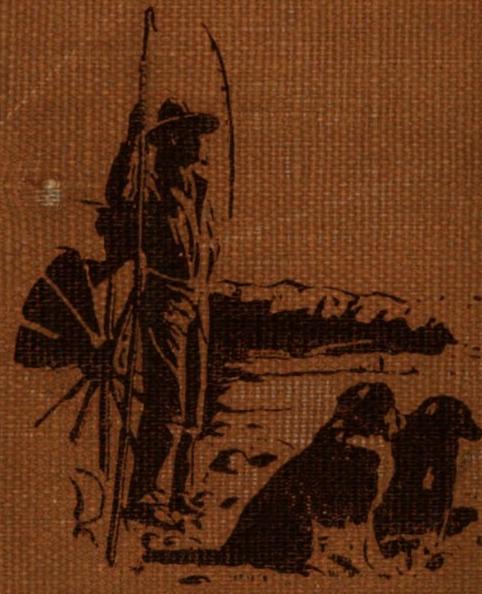
## **HISTORY ★ PERSONALITIES**

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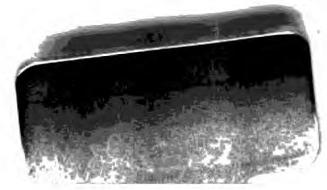
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# America's Sheep Trails

HISTORY ☆ PERSONALITIES





MEN of the lonely places,  
How do you fare today?  
Men of the wind-swept spaces,  
What friend has come your way?

What welcome face is gleaming,  
What palm has closed o'er thine?  
What, then, shall break thy dreaming  
Except the sheep-dog's whine?

Men of the open spaces,  
How do you fare today?  
Men of the wind-burnt faces,  
How wear your hearts away?  
—Arthur Chapman, *At the Outposts*





*Belden Photo*



# America's Sheep Trails

HISTORY ☆ PERSONALITIES

*by* EDWARD NORRIS WENTWORTH



THE IOWA STATE COLLEGE PRESS ☆ 1948  
Ames, Iowa

**EDWARD NORRIS WENTWORTH**

*Portrait Gallery of the Saddle and Sirloin Club, Chicago, 1919*

*Progressive Cattle Raising, Chicago, 1920*

*Progressive Hog Raising, Chicago, 1920*

*Marketing Livestock and Meats, Chicago, 1925*

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To the Army of Pioneers

Whose Trails have topped the Great Divide

Whose Fortitude made available the American Grasslands

Whose Foresight brought to these Vastnesses

The Fertile Tread of the Golden Hoof

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## Foreword

WHEN sheep and their attendants took over the Western Hemisphere, they experienced none of the poetic romance commonly credited to the life of the shepherd. The fanciful concept of forest pipes, sheltering boughs, and woodland dances—of naïve adoration of bud and bloom—held little significance for either sheepherder or flockowner. Ovine immigrants to America met Nature in the raw, with sheep and shepherds alike striving against the rigors of an unaccustomed climate and a formidable terrain.

Our commercial sheep industry developed under the watchful eyes of rather masculine *sheepherders*—not maternally inclined *shepherds*. The distinction is sharp. Herders not only fought wolves, coyotes, bears, mountain lions, bobcats, and eagles as part of their daily routine, but had to outguess the weather, and overcome such contrasting experiences as deserts and floods, hailstorms and prairie fires, “black” blizzards and white.

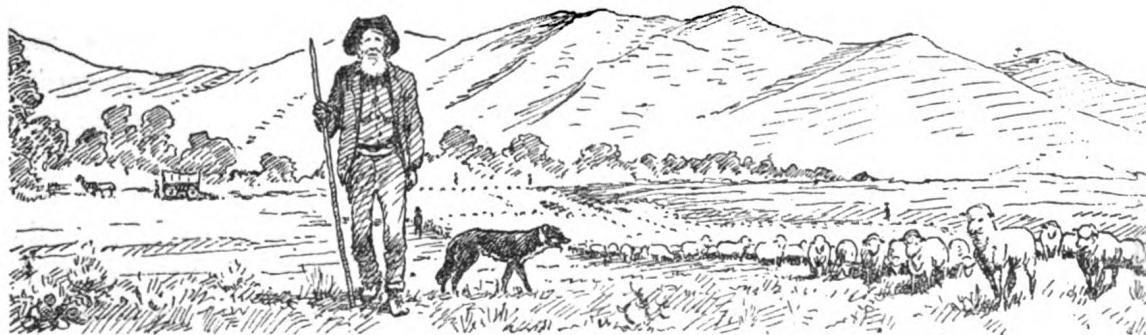
The sheep's only offensive weapon was its uncanny ability to take over the grass. When flocks reached fresh ranges they left very little for cattle or horses following them; while, if they trailed, nothing remained to be garnered by another grazier during the same season. Once the Hundredth Meridian was crossed, water and grass, the roots of ovine husbandry, were there for the first comer only. The American public land policy placed a premium on the man who got there first—because he got the most. Hence this combination of an ability to graze deeply into the grass roots, and a national land policy that rewarded despoliation, gave rise to that long-endured crime of the open range—the cattle-sheep wars.

The author believes that the following pages offer a record, and express an appreciation, of the part sheep played in building the United States. No important step has taken place without a contribution from the flock, its fleece, or its master. Few indeed were the military

expeditions leading to the settlement of this continent that did not have their quota of sheep with advance party or train. The distribution of flocks over the country rarely failed to be identified with the great moves that brought civilization to the wilderness. Sheep accompanied Conquistador and Puritan, miner and soldier, merchant and farmer, into each new region, and provided the raw materials that attracted trails, markets, woolen mills, packing houses, and finally highways and trucks.

Trails of the shepherd, searching fresh grasses for his flock, led to every corner of the most remote canyon and precipice. No hunter, explorer, or scientist has penetrated the obscure parts of our western mountains and forests with the frequency, thoroughness, or methodical regularity that has characterized the sheepherder. Flockmaster and flocks alike have participated in, or created, the long series of situations that have welded us into the nation of today.

For years the author tried unsuccessfully to induce experienced writers of agricultural history to interest themselves in the ovine story. Finally he assumed the task himself. Although not a sheepman, his life was full of experiences colored by the industry. As a boy in Iowa, he came in contact with many of the pioneers who were just balancing their lifetime accounts. An uncle who had gone to Wyoming as a youth gave him intimate glimpses of an era that was fast passing. Residence alongside one of the great arteries of transcontinental rail transportation helped to familiarize him with the names and adventures of the prominent livestock operators. Youthful duties as a clerk at the Iowa State Fair, and as a reporter for the *Chicago Livestock World*, the old *Breeder's Gazette*, the *Field Illustrated*, and other farm papers, helped acquaint him personally with the molders of mutton form from breeding pens or feedlot to the showyard. Finally, a quarter of a century with Armour and Company in the meat industry provided the opportunity



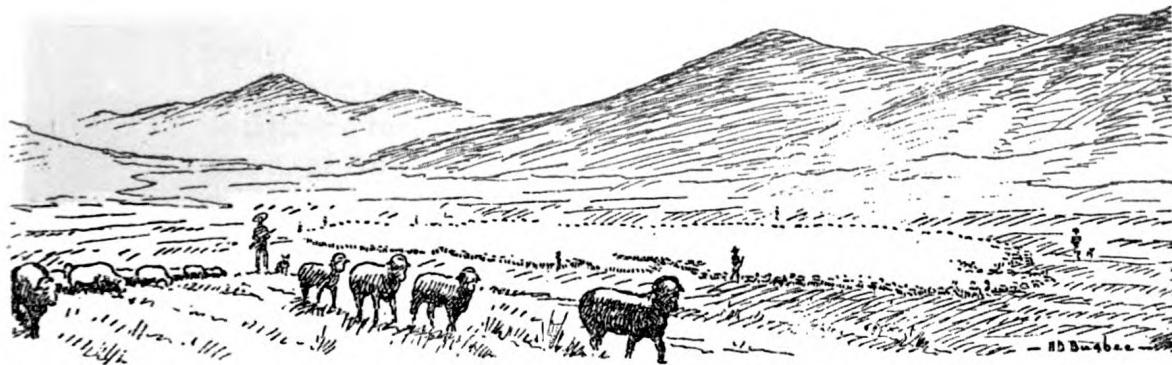
to visit practically all of the livestock-producing areas of the country, and obtain a background of veterans' reminiscences and personal records.

An apology may seem due for the neglect of the purebred sheep breeder, the wool trade, and the tariff, but the length of the volume provides an obvious answer. Besides, their tales are already in the record. Also, the historian scanning these pages may feel that more contemporary authority should have been cited. Personal reminiscences frequently become soft-focussed by the years. But such recollections lead to a comprehensive impression in which details fit better into their causal relations. Hence the author grasped opportunities as they were offered, even though old newspaper files and farm or ranch records were not always searched to confirm minor details. Too often references are cited in secondary, rather than original sources, because time in a war-torn world restricted library research. But in all cases the route to the original source is suggested.

Many of the characters interviewed still live. It is hoped that some aspects of their personalities carry over to these chapters. On the other hand, some readers may find too many personalities. But history is neither lived nor written, except by the actors that move across its pages, and those who disapprove the recording of many names will remember that those very names provide the clues for further research into the ovine tradition. Flocks came into being only as an expression of the flockmaster behind them. Sheep trails cross the American horizon because someone herded the flocks, picked out the bedgrounds, dispersed the predators, and turned ram, ewe, wether, lamb, and wool into living achievement.

EDWARD N. WENTWORTH

December, 1947





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# America's Sheep Trails

HISTORY ☆ PERSONALITIES





*The tacit compact mutually binding betwixt man and the animals he domesticates, implies a duty connected with an interest to both parties. Man furnishes to them food and protection, and enables them to pass a few years of comfortable existence; they repay him with their lives or their services.*

—John Bradbury, “Travels in the Interior of America”

\* 1 \*

## Out of the Orient

THE TRAIL of sheep leads out of the centuries. Its primitive traces emerge dimly from the rocks and dusts of ancient Asia. During the Old Stone Age the western tribes of that continent were following bands of wild sheep, back and forth with the seasons, adapting their own convenience to the whims and necessities of the grazing flocks. What unsung individual first demonstrated the greater ease of guiding and herding the wild sheep of that country, as compared to the long pursuits of the hunter, will never be known, but his contribution to human history parallels that of the man who first controlled fire. The tending of flocks forced mankind to plan for the future, and initiated property values.

When Neolithic man drove back the Cro-Magnons in western Europe, about 10,000 b.c., he brought with him domestic livestock—sheep, goats, cattle, and dogs. The most ancient relics suggest that the first food animals to arrive were the flocks of sheep, and apparently they were thoroughly tamed by that date. As the centuries passed, ovine hoofs traveled or intersected the courses of Jason and Ulysses, Alexander and Hannibal, Leif the Lucky and Columbus. The trail of sheep marked the world's tradeways, and the course of empires followed routes

first stirred by the patter of the flock.

\* \* \*

While sheep originated in Asia, there are few fossil remains by which their early movements may be traced. Excavations made in Asia Minor, China, Egypt, Crete, and Europe, all have uncovered something that suggests the early relationships between mankind and sheep. The remotest Orient preserves tradition that is idyllic, but Chinese sheep are on the wrong side of the Asiatic mountain ranges to bear sufficient relationship to our modern breeds.

Remains of prehistoric sheep date to an earlier time in Europe than in Asia. Evidence of their culture has been found in the Neolithic kitchen-middens of Denmark. Over three-quarters of a century ago, other evidence was found in the remains of prehistoric dwellings in Switzerland. These homes were revealed by the unexpectedly low level of certain lakes, and numerous relics were disclosed which proved not only that sheep, goats, cattle, and dogs were present, but also that these animals lived in the same buildings with their masters.

There are five species of wild sheep<sup>1</sup>

<sup>1</sup> Richard Lydekker, *The Sheep and Its Cousins*. Lydekker's nomenclature is largely followed for species.

recognized by most naturalists. In order of resemblance to domestic sheep they are:

- Ovis vignei*—the *urial* of western Asia,
- Ovis musimon*—the *mouflon* of south-eastern Europe,
- Ovis ammon*—the *argali* of the Asiatic highlands,
- Ovis canadensis*—the *bighorn* of North America, and
- Ovis tragelaphus*—the *aoudad* of northern Africa.

The *urial* and the *mouflon* possess both the same conformation and general characteristics as domestic sheep. The *aoudad* resembles it so little that certain zoologists have failed even to classify it in the genus *Ovis*. The *argali* resembles some of the Asiatic breeds, and the *bighorn* is a true sheep but apparently unrelated to any domestic forms.

From an evolutionary standpoint, three distinct problems have proved troublesome. In the first place, many of the domestic breeds are polled, while none of the wild species show polled rams, and only occasionally does a single wild species have polled ewes. Undoubtedly the polled trait characteristic of so many domestic breeds arose as a genetic mutation, although horns in sheep are inherited according to three patterns. Some breeds possess horns in both sexes; others have horned rams and polled ewes; and still others show both sexes polled.

The second problem arose with reference to the tail. All existing *wild* species of sheep possess short tails, and all *domestic* breeds of the United States possess long tails. Long tails in domestic sheep did not appear suddenly, as nearly six milleniums ago there were primitive breeds in the eastern Mediterranean areas with tails of different lengths. Many students of sheep descent believe that the long tail developed as a gradual

evolutionary change, because taillessness of the wild sheep has not proved to be a unit in inheritance.<sup>2</sup> Possibly the long tail could be preserved only under domestication, for long tails favor parasitic infection.

The third problem lay in the fleece. All wild sheep are clothed with a hairy coat, but mingled throughout the base of the hairs is a short, fleecy undercoat. In domestic sheep, the hairy coat has almost entirely disappeared and the undercoat has become the main covering, through an increase in length and density of fiber. If one examines European wild varieties from north to south, it will be observed that the soft undercoat is least developed in the regions where the sheep have to withstand rain and moisture. In the drier, more southern parts of the continent, a maximum of woolly undercoat is shown.

#### DOMESTIC SHEEP IN WESTERN ASIA

Although some part of Asia Minor cradled the domestication of sheep, archaeological evidences of its existence in that region thus far are less numerous than in Egypt, Crete, or Greece. At Anau in Turkestan, bones of a domesticated sheep have been discovered which date from 8250 B.C. Cultures found from Mesopotamia some four thousand years later (Jemdet-Nasr, 4,000–3,000 B.C.) were already showing a division of their domestic sheep into three types.<sup>3</sup> One of these was a hairy breed, the second was a broad-tailed strain, and the third was a true fleece-bearing sheep. Confirmation of the latter two types is found in a mosaic frieze from Ur now in the British Museum, which shows a short-tailed, fleece-bearing type of sheep

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<sup>2</sup> J. A. Frazer-Roberts and F. A. E. Crew, "The Genetics of Sheep," *Bibliotheca Genetica*, 2:263–86.

<sup>3</sup> Max Hilzheimer, "Sheep," *Antiquity*, 10, 38 (June, 1936) :199.

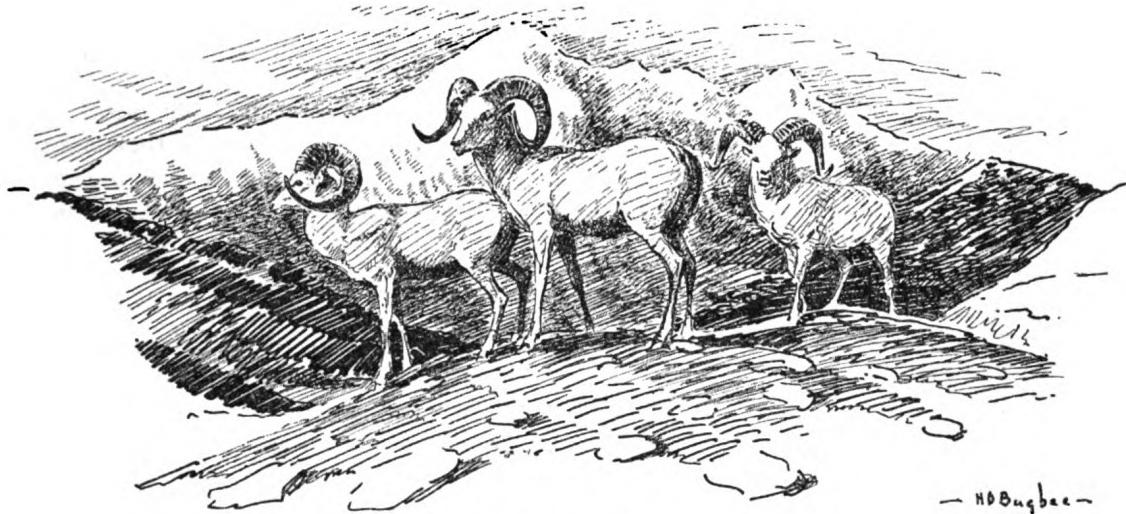


FIG. 1—Dall, or White Bighorn.

and a woolless sheep with a broad tail reaching the hock. The latter may have been depicted after being shorn or plucked, since in the later Assyrian period the same kind of animal was shown with a fleece.<sup>4</sup>

The hairy type was the most primitive. Apparently it possessed nothing suggestive of a fleece, though the rams showed a thick mane. The tail already was elongated as it reached the hock joints, and the horns projected horizontally in corkscrew spirals. The Sumerian art which presented these three different types was difficult to interpret, and only the modern breeds of that region have made it possible to understand what these artists were trying to depict. A variety of sheep of this character still persists in Mesopotamia, although it probably has not been kept racially pure.

The broad-tailed sheep shown in the frieze is assumed to represent a first step in improvement, but apparently this particular kind did not persist very long in Mesopotamia after the Jemdet-Nasr period. The important point concerning it is that it had many characteristics which are retained today in several of the modern breeds of Asia Minor.

The third, or fleecy, type was the true

domestic sheep which was imported into Egypt. It had erect ears and a long tail reaching to the hocks. The ewes were horned, but polled ewes with drooping ears appeared in the early centuries of the Old Kingdom in Egypt (3400 to 2400 B.C.). The shape of the head was still like that of the wild species.

#### EGYPTIAN SHEEP

The earliest sheep remains in Egypt go back to the second prehistoric culture, 5000 to 4000 B.C., and were apparently related to the hairy breed of Mesopotamia. They were long-legged with short spiral horns that projected transversely. This type persisted from 2400 to 1580 B.C., when it seems to have been predominant. Soon after the beginning of the Empire, it became rare or extinct. The fat-tailed sheep followed the hairy breed into Egypt and passed on southward into Abyssinia, Somaliland, and equatorial East Africa. During the New Kingdom in Egypt (1580 to 1050 B.C.), another breed appeared with heavy horns, which were normal in shape, and possessed of a long thin tail—the well-known Ram of Ammon. Lydekker believes that both this breed and the hairy

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<sup>4</sup> Hilzheimer, "Sheep," 200.

breed came originally from Syria.<sup>5</sup> The old hairy breed was probably the only one that could survive outside domestic control, and the preservation of the fat-tailed type, and of the Ammon type, was due entirely to human protection. This latter variety was a real fleecy sheep and eventually covered the most of North Africa.

Man inhabited the Nile Valley in pre-agricultural times as a wanderer—part hunter and part herdsman. In addition to his sheep, his domestic animals included goats, long-horned oxen, and some partially tamed animals such as ibexes, oryxes, and gazelles. The partially tamed animals were being discarded at about the time that history begins. No pasture land existed to sustain livestock, except in certain valleys where the culture of the soil was first developed. These were apparently able to support sheep and goats at certain seasons of the year only, and cattle could not be kept there at all on account of their size. In fact, the rich and productive agriculture of historic Egypt was as much a gift of man, through his culture and irrigation, as it was of the River Nile.<sup>6</sup>

Just before the First Dynasty (3250 B.C.) there was a very fertile and prosperous region in the western part of the delta, on the Canopic branch of the Nile, which was known as "Olive Land." On a predynastic slate palette are figured olive trees, asses, oxen, and sheep of the type known as the Ser-sheep, the primitive hairy variety already described. On this same palette is recorded the capture of 120,000 prisoners, 400,000 oxen, and 1,422,000 sheep and goats. Unquestionably the rulers exaggerated these figures, following the custom of all rulers of that period in order to enhance their reputations. Yet several centuries, later, Sahure, a king of the Fifth Dynasty, claimed to have captured 243,688 sheep,

232,413 goats, and 233,400 asses.<sup>7</sup> Regardless of the reliability of these figures, there must have been an immense sheep population in the delta at that time.

Cultural influences from the Nile were reaching Crete by 3000 B.C., even before the beginning of the Egyptian Dynasty.<sup>8</sup> Both Crete and Cyprus possessed reddish-brown animals of the mouflon type which were domesticated. Apparently the sheep with which Ulysses escaped from the cave of the Cyclops were of this variety.<sup>9</sup> These near-mouflons were probably more closely related to the modern breeds of Europe than to any of the contemporary Egyptian or Asiatic varieties.

#### BROAD-TAILED SHEEP

While the broad-tailed breed bears no demonstrated relation to the European sheep transferred to America, it is of considerable interest from the historical standpoint. Its chief characteristic is the enormous accumulation of fat on each side of the tail bone throughout its entire length. This tail has been esteemed a great delicacy, the fat being used quite regularly in place of butter. The fat-rumped sheep have similar accumulations of fat on the rump and around the pin bones, which fall behind as two masses that often conceal the short tail. Herodotus wrote in the fifth century B.C.: "In Arabia there are marvelous sheep, one kind has tails three ells long, so that men attach them to a little trolley, to prevent them trailing on the ground so contracting sores.

<sup>5</sup> P. E. Newberry, "Egypt as a Field for Anthropological Research," *Annual Report, Smithsonian Institution* (1924), 450.

<sup>6</sup> *Ibid.*, 440-41.

<sup>7</sup> *Ibid.*, 445.

<sup>8</sup> *Ibid.*, 435.

<sup>9</sup> Homer, *Odyssey*, Book IX, 11:461-65.

The other sort have tails as much as an ell broad."<sup>10</sup>

#### PRIMITIVE EUROPEAN RACES

In the Swiss lake dwellings already mentioned, Rütimeyer<sup>11</sup> discovered, about 1861, the remains of a small, slender, horned race of sheep to which he gave the name of "Torfschaf," or peat sheep. Subsequently, remnants of this race were found surviving in isolated parts of the mountain regions in the Canton of the Grisons. It was a small, black-faced, black-legged breed, with a tail that reached the hocks, with small, sharp-edged, goat-like horns, small mobile ears, and a short, thick fleece, varying in color from silvery white through iron gray to dark brown or black.<sup>12</sup> These were popularly known as turbary sheep.

Evidence connecting this turbary sheep with the wild *urial* was discovered by Dr. Dürst in the deposits at the city of Anau in Turkestan.<sup>13</sup> Sheep of this type are still found in Asia Minor, Cyprus, and Crete, and in the latter place they were perhaps found as far back as the late Stone Age. Dürst believes that the earliest domesticated European sheep was derived directly from this stock.

Pumpelly dated the first sheep at Anau about 8250 B.C., and the turbary attained its full development there two thousand years later. About 7000 B.C., Dr. Dürst believes a large-horned sheep migrated from Turkestan to western Europe,<sup>14</sup> and crosses of these large sheep were later found around the Neolithic lake dwellings. In 1882, Dr. Studer discovered the forehead and horn cores of such a sheep, apparently domesticated, in some ancient houses on Lake Bieler in Switzerland. These settlements were of the Copper Age, and the sheep became known as the "Copper Age" sheep. This newly-discovered race possessed

massive spiral horns and Dürst showed that in this trait it closely resembled the *mouflon*.

Hilzheimer doubted whether there were really two types of sheep involved, however.<sup>15</sup> He believed that the large-horned "Copper Age" sheep was merely a mature ram of the same strain as those found in the earlier dwellings, the latter being young males. The majority of our modern breeds seem to resemble these Bronze Age sheep more closely than the originally recognized turbary type.

#### WILD TYPES AND MODERN BREEDS

From the *urial* and the *mouflon* foundation there have developed four main types or groups of domestic sheep:

- a) the fine-wooled of Mediterranean origin;
- b) the middle-wooled of European and English origin;
- c) the long-wooled of European and English origin;
- d) the carpet-wooled type of Asiatic origin (in which some *argali* traits may be recognized).

In suggesting the foregoing origins, reference is made to archaeological record rather than to the true genetic derivation.

The first type spread westward across the Mediterranean from Greece through Italy into Spain, while the second and third types were probably related to a

<sup>10</sup> Herodotus, Book III, 1:113.

<sup>11</sup> Karl Ludwig Rütimeyer, "Die Fauna der Pfahlbauten der Schweiz." *Schweizerische naturforschende Gesellschaft*, Vol. 19 (1862).

<sup>12</sup> Conrad Keller, "Die Abstammung des Bünderschafer und Torfschafes," *Actes de la Société Helvétique des Sciences Naturelles*, 83 (1901): 86-98.

<sup>13</sup> J. U. Dürst. "Animal Remains from the Excavations of Anau," in Pumpelly's *Explorations in Turkestan*, 2:373.

<sup>14</sup> *Ibid.*, 439.

<sup>15</sup> Hilzheimer, "Sheep," 203-4.

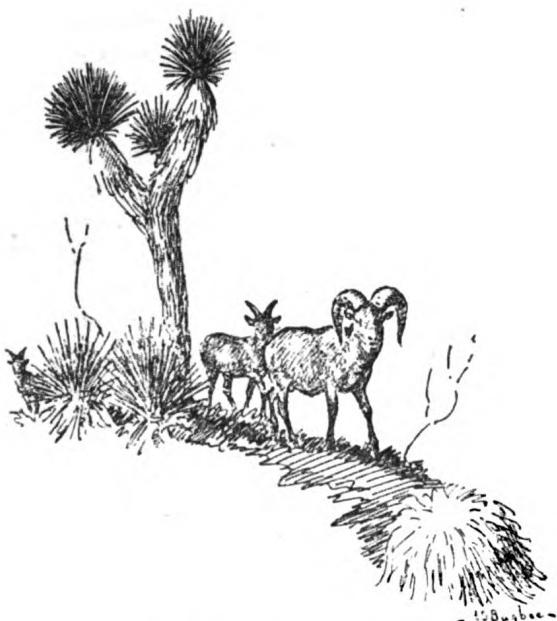


FIG. 2—Texas Variety of Bighorn.

lightly-wooled sheep found in northern Europe. The carpet-wool type remained in Asia and shows kinship only to breeds that still remain there or to such fur-bearing breeds as the Karakul which have been imported into the United States.

#### NORTH EUROPEAN VARIETIES

At the time that historical records first occur in Europe, a dark or mottled-faced sheep of moderate size was found in the northern part of the continent. It possessed a light, coarse fleece and many of the same traits as the turbary type. It existed to the north of the Alps, in northern and northeastern Germany, on the Scandinavian heaths, in Iceland, on the Orkney, Faroe, and Shetland Islands, and at other isolated points on the rim of Europe. Some of these sheep showed a tendency to multiple horns and they all produced loose, quick-drying fleeces. Quarters from this northern race weighed only five to six pounds, but, despite this lack of size and the lightness of the fleece (one and a half to two

pounds), it was probably the ancestor of the mutton breeds, since it was harder, thicker muscled, and blockier.

Rather early these northern sheep seem to have separated into two types (perhaps while they were still in the hands of the primitive Celtic, Germanic, and Slavic tribes), a division based on habitat and size. The smaller variety seemed to thrive in the mountains and more remote regions, while the larger variety proved thriftier in the lowlands of Hungary, Germany, Scandinavia, Flanders, and Great Britain. The smaller strain was horned in both sexes and possessed a light, open fleece that showed considerable quantities of outer hair, including plenty of brown, gray, or black color. Sometimes this color was spread over the entire body, and sometimes it appeared in spots or flecks. This type, too, was frequently barelegged, but it was usually better wooled under the belly than the lowland strains. Typical of this class of sheep were the primitive Soay and Shetland breeds from the islands of those names, which survive today. From the lowland strain came the modern long-wooled breeds, in some cases following crosses with the sheep of southern Europe. The lowland variety possessed more white fibers in the fleece than the smaller race, although there were black fibers scattered throughout the pelts of both kinds. Many of the lowland sheep were polled, either in the female or in both sexes, and they were usually barefaced and barelegged, with a loose, open staple.

#### RACES OF SOUTHERN EUROPE

The southern sheep was a white-faced animal of fair size and relatively fine fleece that was found throughout the Mediterranean countries. The flocking instinct was strongly developed in this type, while in the northern races there was a tendency for the individuals to scatter. Quarters from the southern

sheep weighed nine to ten pounds apiece and fleeces weighed from two to five pounds. This southern race was certainly related to the modern fine-wooled breeds, as it can be traced almost continuously throughout Phoenician, Greek, Roman, and Spanish history.

A pure white color of fleece was never characteristic of the wild species. Biblical evidence of David's time shows that the domestic sheep of the Hebrews were parti-colored, and one of the earliest business transactions mentioned in the Bible covered the agreement of Jacob with his father-in-law, Laban. Under this, Jacob agreed to "pass through all thy flock today, removing from thence all the speckled or spotted cattle (sheep), and all the brown cattle (sheep) among the sheep, and the spotted and speckled among the goats; and of such shall be my hire."<sup>16</sup> On genetic probability, Jacob got the majority of the young.

#### FINE WOOLED SHEEP

Wool was first worn in the form of pelts. But because of the ease with which the fibers could be spun and the threads woven, and because of the comfort derived from woven fabrics, it was probably the first textile to be used for clothing. The Phoenicians and Mesopotamians developed early a breed in which the fineness of fiber and density of fleece was markedly superior to other sheep. Tyrian purple and Phoenician woolens were equally famous, and the fine fabrics made from them were known in Greece, the Italian peninsula, Carthage, and Spain, long before the dominance of Rome. Sheep exported by the Phoenicians had maintained high standards for many years, and Sardis and Miletus were famous wool-producing centers. Definite records exist of the transfer of Phoenician sheep to Samos and Carthage. Miletus traded with the markets in Ionia, Attica, Magna Graecia, Sicily, and Rome. The Phoenician wool-

ens were exchanged by their mariners for other products, such as the tin and bronze of Britain, as early as 600 B.C. (some have claimed 1200 B.C.). The Greek colonies in Asia hundreds of years before Christ were also famed for their woolen products. Perhaps the legend of Jason's Argonauts and the quest of the Golden Fleece was a primitive expression of the fact that fine-wooled sheep even in antiquity came from the East.

#### ROMAN FLOCK HUSBANDRY

Early Roman writers speak of the systems of management among the peninsula flocks, and the patricians took great pride in this form of agriculture, up to the overthrow of the empire. Evidently the foundation fine-wooled flocks of Italy were of Greek, or even of Phoenician, origin, but the Romans did much to better them. Virgil tells how to improve the texture of fleece by treatment with sweet oil and wine, and gives the following advice on the method of breeding for pure white color:

There will always be those in every flock whose forms you will wish to change, therefore always repair them and choose out from the flock the best offspring yearly. Then, after birth, the care is transferred to the lamb, and they brand them with marks and with the names of the race which they may wish to breed for preserving the flock. If wool be your care, select white flocks with soft fleeces. And if, although the lamb itself be white, reject him which has a black tongue under his moist palate, lest he may stain the fleece of the lambs with black spots, and look about for another in the full field.<sup>17</sup>

The control of the Mediterranean lay in the possession of the pillars of Hercules (Gibraltar). The Carthaginians drove the Phoenicians away about 350 B.C., and the Romans overcame the Carthaginians shortly thereafter. From Massilia (Marseilles) in 330 B.C., Pytheas sailed an impressive fleet to the North and explored parts of England very

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<sup>16</sup> Genesis, 30:31-43.

<sup>17</sup> Virgil, *Georgics*, 3:69-71, 157-61, 384-93.

carefully. He speaks of corn fields, threshing, great farmsteads, and woodland pastures. Many of the latter were clearings, sufficient to accommodate the flock of sheep and herds of cattle kept by the primitive Britons.

The Romans were active colonizers, introducing sheep into Iberia (Spain) and woolen factories into both Iberia and Britain. In 41 A.D., a factory was established in Winchester, where spinning, weaving, and dyeing were carried on. While these operations were probably based on the short-wooled sheep of the district, the Roman writer Dionysius Alexandrinus is quoted as saying that the British wool was "often spun so fine that it is, in a manner, comparable to a spider's web.<sup>18</sup> In fact, all of the Roman colonies that raised sheep were encouraged and supervised in developing woolen manufactures.

#### IBERIAN SHEEP

The Roman colonization of Iberia had resulted in a marked improvement in the latter's agriculture. The natives had numerous flocks of the North European sheep already described, which were probably the forerunners of the Spanish *churros* first introduced to the Western Hemisphere, while the fine-wools may have originated as a result of the Phoenician seafarers.<sup>19</sup> However, the credit for the foundation of the early Spanish Merinos should go to the Romans, because of the breeding systems which they introduced and the methods of selection which they established. As a result of their promotional work in Iberia, sheep improvement was not halted when the barbarians overran the Roman Empire, even though the sheep population of the Italian peninsula itself was reduced to a few badly-formed specimens just south of the Alps.

Columella, a Latin writer of the first century, speaks of the rivalling of the

Roman fleeces by the Iberian shepherds. In his writings,<sup>20</sup> he tells how his uncle sought to improve his sheep by importations from Africa, and several writers have passed on the false tradition that Iberian sheep were brown-fleeced until white-fleeced African rams were introduced. This is doubtful, since the Romans sent large numbers of improved sheep to Spain, and Strabo reported that the finest wool in existence came from Iberia.

The success of these efforts was measured by the weaving industry which developed under the Moors. Peter the Fourth of Aragon imported both Berber and Moorish sheep to improve the Spanish woolens. In the eighth century, Seville alone had sixteen thousand looms, and it is estimated that there were five to ten times as many in all Spain. The defeat of the Moors, and the Christian supremacy, proved nearly fatal to the art of weaving, as the Moorish handicrafts were accounted just as infidel as their religion and were destroyed with the same zeal. Only the energy of certain orders of monks that took an interest in agriculture prevented the loss of the improved fine-wooled sheep as well.

About 1800 Livingston wrote that there were two distinct breeds of sheep in Spain, the Merinos and the *churros* (his spelling was *choaroes*), with various degrees of mixtures and crosses—the total sheep population being six million head. He says:

Those called the *choaroes* are much longer, larger and higher upon their legs than the Merinos. Their heads are smaller and deprived of wool. Their constitutions are stronger than those of the Merino. Their wool is near eight

<sup>18</sup> Alfred Seymour Jones, "The Sheep and Its Skin," *The Leather Trades Review* (1913), 44, quotes Dionysius Alexandrinus.

<sup>19</sup> Hilzheimer, "Sheep," 205.

<sup>20</sup> Lucius Junius Moderatus Columella, Lib. VII, Cap. II, 11:10-25.



FIG. 3—Oriental Shepherd.

inches long, but straight and of inferior value. This race extends through all Spain, even into those provinces in which the Merino is most perfect.<sup>21</sup>

#### MERINOS IN SPAIN

The Merinos reached the highest degree of improvement in the northern provinces of Spain—in the old kingdom of Leon, in the provinces of Segovia and Soria, in old Castile, and in the district of Buitrago in New Castile. From these areas they were driven southward at the approach of winter and dispersed over the plains of Estremadura, La Mancha, and Andalusia, until the return of summer when they traveled back to their native pastures. This custom was followed for so many years that the sheep were said to display symptoms of restlessness, either because of instinct or habit, as the time approached for their change of pasture. They were consequently termed *transhumante* flocks, and there was a code of regulations, sanctioned by law, for the government of the flocks and the shepherds during these periodical migrations. The winter pasturages were secured for them at a

fixed rate, and a strip of land of considerable width was left in grass at each side of the road for their accommodation. By moving them from north to south and back again the sheep were kept in equable temperatures, and many authorities attributed the superiority of the wool of the *transhumantes* to that fact.

Two centuries ago their wool commanded nearly twice as much money per pound as did that of the stationary flocks, the *estantes*. However, there were a few flocks in the province of Segovia which were said to produce as fine wool as any of the *transhumantes*, and these flocks did not migrate at all.

The Merinos, with only a few exceptions, were held in Spain by the kings, the nobles, and the clergy. Since their exportation was prohibited and extreme care was bestowed on the fleece, Spain long controlled the fine wool trade of

<sup>21</sup> Robert Livingston, "Essay on Sheep," *Transactions of Society for the Promotion of Useful Arts in New York*, 28-29.

the world. Until the nineteenth century, none were exported except by royal favor or by smuggling. The *transhumante* flocks varied considerably in numbers during historic times. In the sixteenth century they were estimated at above seven million head,<sup>22</sup> but by the opening of the nineteenth century the numbers had diminished to approximately five million.<sup>23</sup> Other authors report reductions to only two and one-half million head at other times—particularly after 1815.

One characteristic especially valuable in the *transhumante* flocks was the so-called flocking instinct. All sheep possess this gregarious tendency and are "flock-bound" to a certain degree, but the impulse was particularly strong in the Merino and suggests predominant descent from the wild *urial*. This instinct is of great importance in regions where sheep are herded on rough, unfenced range, and breeds so handled must possess it to a marked degree. Any individual sheep found separated from a Merino flock is certain to be lost, sick, or injured. Closely associated with this instinct is the tendency to follow a leader. Where one sheep goes, others follow—even though it involves a long leap to death or a plunge into the water.

Among the families of the Merinos were the *Negrettis*, *Guadalupes*, *Paulars*, *Aguirres*, *Escurials*, and *Infantados*—all of which contributed to the support of the Spanish government for years.<sup>24</sup>

During the early part of the Napoleonic Wars the Merino flocks in Spain were decimated, and the sheep on four estates were confiscated by the Spanish Council of State because the proprietors swore fealty to France. The *Paulars* were

reduced from thirty or forty thousand head to seventy-five hundred; the *Negrettis* from similar figures to six thousand; the *Montarcos* from thirty thousand to four thousand; and the *Aguirres* from thirty thousand to three thousand. The American consul, William Jarvis, estimated that a hundred thousand head of the finest sheep in Spain were destroyed during the war, leaving slightly over twenty thousand head as a reproductive nucleus.<sup>25</sup>

The real improvement in the Merino after 1800 began with its exportation. Its modern influence traces entirely to its development in other countries. By 1815 the Spanish monopoly was broken, and there was considerable dispersion of the Merino bloods. Exceptional development took place in the United States, Australia, New Zealand, France, Germany, Saxony, and Sweden. Although many attempts were made to establish the breed in England, its moist climate proved unfavorable to the growth of the finest wools. However, especially superior strains developed in America, Australia, France, and Saxony.

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Cradled in the Near East, and evolving with man from his stage as huntsman to that of herdsman, sheep husbandry has been more intimately connected with the advance of civilization than any other single industry.

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<sup>22</sup> Charles A. Goodrich, *A New Family Encyclopedia*, 337.

<sup>23</sup> Livingston, "Essay on Sheep," 98.

<sup>24</sup> For condensed description of these varieties see Charles S. Plumb, *Types and Breeds of Farm Animals*, 490–92.

<sup>25</sup> *Ibid.*, 492.

*But every wind careering  
Seems here to breathe a song  
A song of brave frontiering  
A saga of the strong!*

—Arthur Chapman, "The Frontier Fort"

\* 2 \*

## Sheep in the New World

BEFORE the Spanish advance into the Western Hemisphere, the record of its sheep was quite limited. The distribution was restricted to the domestic flocks of Iceland, the ill-fated Norse colony in Greenland, and to the wild species inhabiting the mountain chains of western North America. The Norse settlements, however, were worthy of the sagas they evoked—true and gallant ventures beyond the rim of the world they knew. Mankind has ever welcomed the *rising* sun because its approach was friendly and its greeting warm. He has pursued it beyond the horizon, because it has disappeared into a golden and inviting unknown. The land beyond the *setting* sun has lured him since the dawn of history—and his trail has been broadened and its pattern made permanent by the hoofs of unnumbered flocks that have accompanied him.

\* \* \*

The ovine route from the Orient to the Occident was sometimes devious, and its alleys blind. First flocks to reach the American mainland made no juncture with the present, though their tale was most romantic. The earliest farms in the New World that possessed sheep, cattle, horses, and swine were in Iceland on the very fringe of the hemisphere. Thule was the first historical name of this island—it is identified with "Ultima Thule," that legendary northerly land which called forth so much fantasy during the centuries. This island was prob-

ably reached from the British Isles, in the third or fourth century before Christ. Pytheas visited it during his expedition from Massilia about 330 B.C., locating it under direction, if not actual pilotage, supplied him from northern Scotland.<sup>1</sup>

### ICELAND

The date when the Irish originally visited Iceland is unknown. Saint Brendan was probably there between 565 and 573 A.D., and Dicuil, writing in 820, tells of priests who were present from February to August in 795. When the Norsemen debarked a colony about 874, they found Irish religious hermits in residence who were seeking solitude for worship. They called them "papar" or "fathers."

But sheep were already on the island. Between 860 and 870, Hrafna-Flóki had transported a flock from Norway to Iceland,<sup>2</sup> probably for food supply. But the fjord where Flóki landed was full of fish, and he and his men forgot everything except salting and packing away their catches. As a result they neglected to provide hay for their sheep, and during the severe cold of the next spring Flóki lost his flocks. This experience so embittered him that he christened the island Iceland, and the name has persisted.

Whether the Irish already there pos-

<sup>1</sup> Vilhjálmur Stefánsson, *Greenland*, 67–69.

<sup>2</sup> Steingrímur Arason, Reykjavík, Iceland. Interview with author, June 18, 1943.

sessed sheep has been questioned. Stefánsson,<sup>3</sup> however, reports a belief that, previous to the expedition of Flóki, Iceland may have been a sheep preserve for British seafarers who sailed the northern waters. Because of climatic conditions in Iceland, the principal food had to be fish, game, or the meat of



FIG. 4—Icelandic ram. (Reproduced from New Encyclopedia, published in 1835.)

domestic animals. It is extremely probable, therefore, that the Irish brought livestock with them, as some of them, at least, had families to support—women and children. Celibacy had not been enforced on religious representatives of the Catholic church at that date. But apparently the Irish vacated the island because they regarded the Norse as heathen, and were too timid to attempt proselytizing them. If they had sheep and cattle, they abandoned them or sold them to the Norsemen, but the records of the vikings do not mention their domestic animals at all.

#### ICELANDIC BLOODLINES

Just what blood was present in the primitive Icelandic sheep is difficult to ascertain. Unquestionably it was the same indigenous stock from which are descended the old mountain sheep ancestral to the Black-Faced Highland in Scotland, the Kerry and other native breeds of Ireland, the Welsh mountain sheep, the sheep of the Orkneys, Shetlands, and Faröes, and the old breed of

northern Russia. Furthermore, blood from all of these various sources must have contributed in part to Icelandic stocks, as all of these countries traditionally had contact with Iceland before 900 A.D. Many of the vikings, who raided Irish farms to capture slaves, brought away not only the farmers and their servants, but also their livestock, feed-stuffs, and even the timbers of their houses and barns.<sup>4</sup> Much of this loot remained in Iceland.

It has been commonly believed that early Icelandic sheep were multiple-horned. However, as far back as records go, most of the sheep possessed two horns each, and of the remainder there were about twice as many polled sheep as multiple-horned. Sheep of northern Iceland had better fleeces than those of the South. The rainiest parts of southern Iceland receive about four times as much precipitation as the driest sections of the North. Coarse, open fleeces were therefore adapted to the South, and finer, denser fleeces to the North.

By 910 A.D. the Norse had established some four thousand farmsteads, and the country became dependent on its herds of sheep, cattle, and horses. True to the contemporaneous Norse appetite, horse flesh was as popular a food in Iceland as in the older Scandinavian countries. Hay was the principal feedstuff for livestock, the cattle receiving the fodder from the fertilized fields, while the sheep and horses utilized that from the natural meadows.

#### ICELANDIC FLOCK MANAGEMENT

Sheep were kept for milk, mutton, and wool. During the winter all were held at the farm. The breeding season was prolonged more than under most systems of husbandry, since the birth of the

<sup>3</sup> Vilhjálmur Stefánsson, New York. Letter to author, July 12, 1943.

<sup>4</sup> *Ibid.*



FIG. 5a—Ancient frieze showing primitive domestic ram (p. 4). (British Museum photo.)



FIG. 5b—Mosaic frieze from Ur (about 3000 b. c.). One is a spiral-horned ram and two others have modern type horns. Fleeces apparently were hairy. The tail extends to the hocks, indicating early departure from the characteristic short tail of the wild species (p. 4). (British Museum photo.)

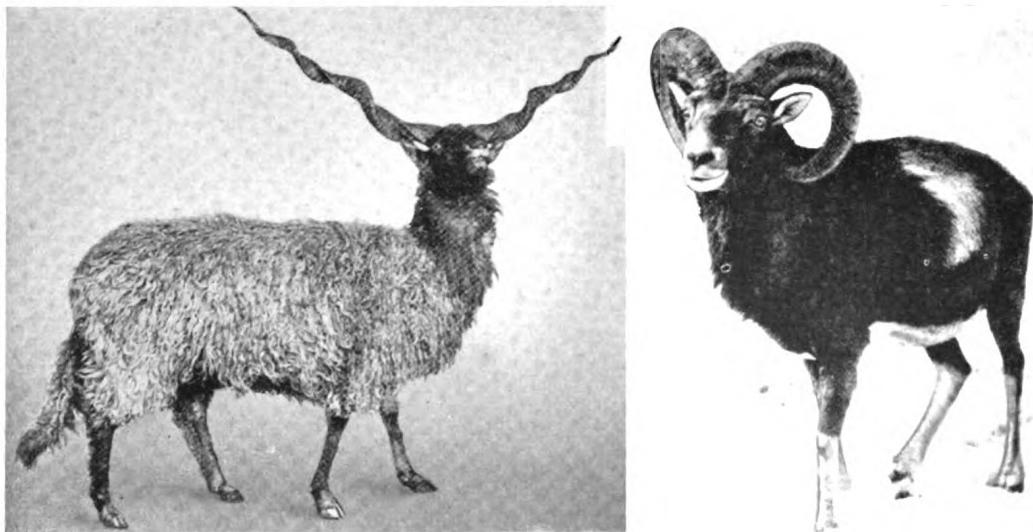


FIG. 6 (Left) —Spiral-horned sheep raised in Wallachia, in Roumania. Modified somewhat by selection and care, it represents the modern extreme survival of the primitive breed first found in Mesopotamia and Egypt, 5000 to 3000 B. C. (p. 5).

FIG. 7 (Right) —European Mouflon (*Ovis musimon*), probable direct ancestor of primitive varieties of domestic sheep now confined to islands off the European mainland (p. 7).



FIG. 8—Bas-relief (restored) from the Cairo Museum, showing ancient Egyptian four-horned ram, with upper pair of spiral horns and lower pair of modern type. The animal has a hairy mane and its tail reaches the hocks (p. 7).

lambs in a short time would have made it impossible to care for them with the average farm facilities. Hence Icelandic lambs were never as uniform in age as modern practice would require.

The custom of milking introduced several systems of management different from those involved in meat and wool production. When the ewes were milked at headquarters, they were driven daily to the pastures by the shepherd, and returned each evening. This system was known as *hjáseta*, or "sit-by-the-sheep." Weaning was a complicated task. On arrival from pasture, ewes were milked, and lambs were released into the fold with them for the night. The next morning part of the milk was drawn from the ewes, and the lambs and ewes turned into the pasture. Again in the evening the ewes were milked, so the amount received by the lambs became

and rams were trailed out for summer grazing. The first day's trip took them across a natural barrier, such as a rapid mountain stream, where the sheep were bedded down. The shepherds usually stayed with them the first night to keep them from turning back, then they were left in the mountains for the summer.

Back at the farm the care of the milk ewes required constant attention. Daily they were driven into the higher altitudes and tablelands where the grass was more nutritious. For centuries the custom was to send a milkmaid and a small boy or two up with the flock into the highlands. Each sheep owner had a house up there which was called a *sel*.<sup>5</sup> The caravan moving from the farm to the *sel* was a long one. First came all the utensils and implements for dairying carried on pack horses; then came the flock driven by the shepherd boys; and at the end came the farmer himself to see that everything was in order. The first day at the *sel* was hectic with many duties, but finally all was settled and the people went home—leaving the milkmaid and the shepherd boys. The *sel* season usually lasted over two months, July and August.

The milk was made into butter, cheese, and *skyr*, all of which could be transported by pack animals.<sup>6</sup> *Skyr* was something like cream cheese, fresh and mild. The milk was heated to approximately 175 degrees Fahrenheit and rennet added. It was then cooled, strained, and stirred in a bowl until of smooth, even texture. Icelanders ate it while sweet, formerly with berries and cream added. Also, in more recent times, sugar was added. Sheep's milk was preferred for making *skyr* because of its richness and keeping quality. Once a week the farmer, or a farm hand, took supplies to the people at the *sel*, and brought back



FIG. 9—Shepherd's Crook from Greenland settlements, discovered by Daniel Bruun.

progressively smaller, and at the end of a week or ten days, the weaning was completed.

The second system was known as *ad háfa i seli*, or dairy production in the wilderness, away from farm headquarters. Naturally it was practiced during the summer only, and usually started with the *fráfaerur*. This was the drive in the spring from the farm to the mountains, in which the dry ewes, lambs,

<sup>5</sup> Arason, interview, June 18, 1943.

<sup>6</sup> Stefánsson, interview with author, June 18, 1943.

to the farm the dairy products. The *sel* practice conserved the grass around the farm for use in the fall and winter, practically producing a winter and summer range system.

Still a third system, though less common, was that of *beiterhūse ferdir*. Under this practice most of the flock, except the milk ewes and those with lamb, were kept away from the headquarters during the winter, and a farmhand walked daily to care for them.

Each fall a roundup of the sheep was held in the mountains. Earmarks were recorded for the flocks of separate owners, and a horn brand was added to sheep purchased by one farmer from another. Customarily the sheep owners of a district joined together under one who had been selected as *fjállkóng*, or roundup foreman, who made the assignments. The most active men were sent to the mountain tops, the rest to the slopes, keeping in touch with each other by shouting at regular intervals. The sheep were driven down-slope into a valley and held there overnight. Usually the sorting was accomplished the next day, then each owner drove his band home for the winter.

Life in Iceland was always free and varied, though sometimes turbulent, and the climate and general isolation fostered pastoral pursuits and adventure. Hence Iceland became the stepping stone to the West.

#### GREENLAND

The next country to be reached by sheep in their trek into the western hemisphere was Greenland. In his "Unsolved Mysteries of the Arctic," Stefánsson offers the following challenging phrase:

The great romance of the Middle Ages was the first crossing of the Atlantic by Europeans. . . . The great tragedy . . . was the disappearance of nine thousand Europeans from their first American colony.<sup>7</sup>

And those lost Europeans based their sustenance largely on sheep.

In the spring of 986 A.D., Erik the Red (father of Leif Eriksson) left Iceland for Greenland, with twenty-five ships containing an average of thirty persons each. Included also were cargoes of all kinds of farm animals—sheep, goats, cattle, horses, and perhaps fowl, with hay and other feeds. En route to Greenland they milked the ewes, does, and cows, butchered some animals, and sheared or plucked the fleece from the sheep, making coarse fabric from the wool. Rough weather disposed of eleven ships, but fourteen landed with about four hundred people.<sup>8</sup> Erik put his ships broadside to land after rounding Cape Farewell, and made beach in what is now known as the Julianehaab district. The animals either jumped or were pushed overboard, and swam ashore.<sup>9</sup>

The settlements developed along pastoral lines, with broad pastures for the expanding flocks of sheep, as well as for the cattle and horses. Additional immigration soon built a strong colony, with a parliament in session by 990 A.D. Shortly after 1,000 A.D., the country became Christian under the jurisdiction of the Church of Rome.<sup>10</sup>

Maximum development in the new colony was reached in the twelfth century. Two separate settlements had been established—the so-called Eastern Colony in the Julianehaab district, with one hundred ninety farms, twelve churches, and two convents; and the Western Colony in the present-day Godthaab district, with ninety farms and four

<sup>7</sup> Vilhjálmur Stefánsson, *Unsolved Mysteries of the Arctic*, 1.

<sup>8</sup> *Ibid.*, 2.

<sup>9</sup> Stefánsson, *Greenland*, 67-69.

<sup>10</sup> Stefánsson (editor), *The Flatey Book and Recently Discovered Vatican Manuscripts*, Part IV.

churches. The two settlements were separated by an uninhabited region known as Obygdir,<sup>11</sup> which required six days rowing by boat to pass (some one hundred seventy-five miles along the southwest coast of Greenland).

Most of the farms lay at the innermost part of the fjords, and communication was normally by boat. Finnur Johnson estimated that the two settlements at their peak had a population of nine thousand people, with ample sheep and cattle for their support.<sup>12</sup> Stables have been excavated which show as many as one hundred four cattle stalls in a single barn "and there were corresponding numbers of sheep, with a few of the other domestic animals—horses, goats, pigs, and fowl."<sup>13</sup> Sheepfolds were large and numerous, every farm showing two or three, with sheltering cotes and hay-barns adjoining. Lambs, ewes, and young cattle were grazed in the highlands in the summer.<sup>14</sup> Most of these cotes were located at the foot of the hills, so that sheep had ready access to the grasses and herbage on the slopes above. Walls of the sheepfolds were of stone, often a man's height.

An idea of the production of these farms may be gained from the saga of Einar Sokkason. Two Norwegian traders, Katil and Kolbein, were disputing with the Greenland authorities the award of salvage from an abandoned ship. They agreed to leave the night after the decision, but their food was running low. Hence Katil led an expedition of thirty men to forage on the farm of Thorarin. Despite the pressure to depart and the danger in delay, Katil demanded time for a nap when their search proved fruitless. His indignant comrades guarded him, however, and soon he wakened, saying:

"Many things have I seen (in my dreams). How would it be if we were to pull up by the roots the bush that I rested my head on while I slept?" They pulled it up and beneath was

an underground storehouse. Katil said, 'Let us see, first thing, what there is to be had here.' They found sixty dressed sheep, twelve vaettir (each about eighty pounds) of butter, and a large supply of dried fish. Katil then said, 'It is lucky I did not mislead you.' They went back to the ship with all this booty.<sup>15</sup>

Such farm stores with dressed sheep were typical, for each farm was a community, with the farmer's family, his relatives, his servants, and his slaves.

The most constructive follower of Erik the Red was Herjólf Bardárson. In contrast to those who settled in sheltered fjords, he selected an exposed headland a few miles west and north of Cape Farewell, where he developed a large farm with great flocks and herds. Herjólfssnes grew into a community with its own church, and a nearby harbor became a favorite port of call for Norse vessels.<sup>16</sup>

#### VINLAND

Not long after the Greenland settlements were established, the unplanned expedition to Vinland occurred, whereby the American coast was reached. In the winter of 999–1000 A.D., Leif Eriksson was visiting the Norwegian court, and was virtually compelled by King Olaf Tryggvason to carry missionaries to Greenland. Contrary weather drove the ships off their course and a land producing "wine berries" (grapes) and wild wheat, of which Leif had no previous knowledge, was discovered. His expedition landed and spent the winter in "Vinland" somewhere around the Gulf of St. Lawrence and Nova Scotia.

<sup>11</sup> Vilhjálmur Stefánsson, *The Three Voyages of Martin Frobisher*, xx.

<sup>12</sup> Stefánsson, *Unsolved Mysteries of the Arctic*, 11.

<sup>13</sup> *Ibid.*, 5.

<sup>14</sup> Daniel Bruun, *The Icelandic Colonization of Greenland and the Finding of Vineland*, 166.

<sup>15</sup> Stefánsson, *Greenland*, 158.

<sup>16</sup> Poul Nörlund, "The Buried Past of Greenland," *The Nation*, 119, 3084 (August 13, 1924): 162–63.

The real occupation of Vinland came from the expedition of Thorfinn Karlsefni, who went from Iceland to Greenland in 1003 A.D. After marrying Gudrid, the widow of Leif's brother, he headed a great expedition from Eriksfjord in 1004, for the further exploration and settlement of Vinland. One hundred and sixty men and several women, including Gudrid and Freydis (an illegitimate daughter of Eric the Red), were involved in the venture.

They took along with them (from Greenland) all the different kinds of domestic animals, for they intended to colonize if they were able to do so . . . (When they disembarked), their live-stock (cattle, sheep, horses, and perhaps goats) went up on the land (away from the beach) to graze. The stock soon became restless and wandered about a good deal.<sup>17</sup>

These were the first farm animals in the Western Hemisphere.

After touching what seems to have been Labrador and Newfoundland, they wintered at Cape Breton, though they sent two Scotch runners south to find the land of wine berries and wild wheat. The following spring, 1005, the expedition proceeded there, and found some evidences of Leif's previous visit. Here they met the Skraelings (presumably forest tribes of Indians) who came to barter with them, desiring to exchange furs for red cloth, swords, and spears. Karlsefni ordered that weapons should not be given them, which disappointed the Skraelings greatly. The trading had just commenced when a bull belonging to Karlsefni's expedition ran bellowing from the woods. This frightened the Skraelings so much that they attempted to enter the Norse houses. Karlsefni forbade this, so they ran to their boats, carrying their furs and other trading stock.<sup>18</sup> Gradually a few stole back, and trading flourished until the Norse ran out of the bright red cloth, which the

Skraelings coveted. The latter then became dissatisfied and left.

Three weeks later the natives, some six hundred strong, returned to fight. The Norsemen were holding their own until one of the medicine men tossed behind the warriors a large ball, like "an inflated sheep's belly," attached to a pole and rope. This produced a hollow, groaning noise that frightened the superstitious Norsemen. They began to retreat upstream, permitting the Skraelings to break their line of battle. Freydis ran from the house and berated the warriors for their lack of valor. But her efforts were unavailing and she had to flee for the forest also. Being heavy with child, she was unable to keep pace with the retreating men. On reaching the forest she recovered a sword from a fallen Norse warrior. Tearing open her upper garment and striking herself across her breasts, she apparently whetted her sword against them. Then she turned to fight off the nearest Skraeling. Seemingly her white skin, Junoesque proportions, and fiery spirit were too much for the Indian superstition, and the entire attacking force fled to the canoes in panic.

The expedition did not stay long in Vinland, for Karlsefni saw the impossibility of maintaining his colony among such hostile surroundings. Furthermore, the men began quarreling over the women. The whole group returned to Greenland, taking with them such food animals as remained, and arriving in 1007.

#### DECADENCE IN GREENLAND

After 1200 A.D. the vigor of the Greenland colony seemed to diminish. Three

<sup>17</sup> Stefánsson, letter, October 27, 1945.

<sup>18</sup> Stefánsson, *The Flatey Book and Recently Discovered Vatican Manuscripts*, Part IV, 79, II, 55-58.



FIG. 10—Party of "Sheep-eater" Indians hunting Bighorns.

representatives of the Norwegian crown persuaded the people in 1261 to surrender to the Norwegian King. In exchange for monopolistic postal trade privileges in Greenland, the King agreed to provide regular visits from his ships, at first semiannually and then annually. This commerce continued as late as the end of the fifteenth century, but the arrival of ships became rarer and rarer as ship after ship was lost and as fewer Norse skippers, familiar with the sea routes, survived.

From the point of view of farming and husbandry, the colony in the western settlement seems to have been less successful than the one in the eastern. About 1350 to 1355 a relief expedition was organized by Ivar Bárdarson to visit the western colony. Passing the uninhabited district along the coast, Bárdarson came to farm houses where he saw domestic sheep, cattle, and other animals grazing, but no people. Believing that the settlers had been destroyed and being fearful of

landing, Bárdarson turned back when he was unable to get a response by voice. In Norway about 1370 he wrote:

Skraelings now hold the entire western settlement. Still there are (in that district) plenty of horses, goats, cattle, and sheep; but (they are) all wild and there are no people, either Christian or heathen.<sup>19</sup>

Bárdarson assumed that the settlers had been massacred by the Eskimos, but both Nansen and Stefánsson believe that the colonists were temporarily absent for their annual summer hunt in the North. It would seem quite unnatural for a hunting people like the Eskimos to have killed all the Norsemen, and then have left behind the farm animals which were grazing and in apparently good condition when Bárdarson saw them. Probably in the face of the declining trade with Europe, life based on hunting and fishing was better adapted to

<sup>19</sup> Stefánsson, *The Three Voyages of Martin Frobisher*, xxxi.

Greenland than life under the Norse tradition. Stefánsson<sup>20</sup> concludes that intermarriage and the adoption of the hunter life of the Eskimo most probably accounted for the Norse disappearance. Thus ended the mediaeval sheep industry of Greenland.

#### "SHEEP-EATER" INDIANS

The American Indians knew very little of sheep because the tribes of the Rockies were the only ones that had opportunity to see the particular species which occupied the New World when the Europeans arrived. Yet this fact did not prevent certain tribes, living in the fastnesses of the western mountain ranges, from depending on it for their principal food. The wild nature of the Bighorn and its tendency to gather in groups of only three to ten animals made it difficult, if not impossible, to tame. There were no migratory periods in which the Indians could have followed the small flocks and produced the semi-domestication characteristic of the first sheep tamed in Asia. From the beginning, therefore, it was an object of chase, and provided the dietary foundation for a tribe of Indians known to present day record as the "Sheep-Eaters." These were of the Shoshonean stock which included the Utes, Piutes, Shoshones, Bannocks, and Comanches, as well as the true "Sheep-Eaters"—the Tukuarikas.

This last tribe apparently became extinct about the time of the American Civil War. The relics of its history are found in a few primitive structures or inscribed upon the granite walls of rocky cliffs in defiles and canyons made by tributaries of the Bighorn River, particularly along the Wyoming-Montana border. The "Sheep-Eaters" were a timid and fugitive people. Their last strongholds lay in the most inaccessible parts of the Bighorn, Absaroka, and Teton ranges.

The wild mountain sheep were hunted with the most primitive bows, many of which were made from the horns of the animal itself. The strings were fashioned from sheep sinews, which alone were sturdy enough to flex it.<sup>21</sup> The hunt was conducted with dogs. When the latter saw sheep on an eminence, they surrounded them, confining them there until the Indians, with their flint-headed arrows, came forward to kill them.<sup>22</sup> Sheep were also trapped in pens where the Indians could keep them alive for a time.<sup>23</sup>

The Tukuarikas drew their popular name from their principal article of food, the Bighorn sheep, although when winter set in, elk and deer were frequently killed while descending before a driving snowstorm. Goats were also their prey at times, despite the fact that they were more elusive. The men of this tribe were quite artistic, and made many pictures upon the rocky walls of the canyons. Bald Mountain, in northern Wyoming between Dayton and Kane, still retains a great stone shrine wheel, popularly known as "the Indian Medicine Wheel," where twenty-eight tribes came semiannually to worship the sun. In some of the most inaccessible places in the mountains may be found remains of this people, including the bones of many mountain sheep which were used in their ceremonial feasts.

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Five centuries of Norse colonization in Iceland and Greenland, and unnumbered centuries of Indian hunting left North America without domestic sheep. The field was ripe for the Spanish conqueror, cleric, and colonizer.

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<sup>20</sup> Stefánsson, *Greenland*, 160-97.

<sup>21</sup> W. A. Allen, *The Sheep-Eaters*, 18.

<sup>22</sup> Sarah Emilie Olden, *Shoshone Folk Lore*, 12.

<sup>23</sup> Allen, *The Sheep-Eaters*, 72.

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*Where the mesa meets the timber as it marches up the steep,  
Glowes a beacon like a hill-star near a band of bedded sheep.  
From the firelight's fading circle where the sheep and  
shadows blend,  
'Como 'sta, amigo!' greets us; Spanish for 'How goes it,  
friend?'*  
*... And the very words are music, waking memoried desires,  
As we turn and foot it down the trail to find more little  
fires.*  
*Adventuring! Adventuring! And oh the sights to see!  
And little fires of Southern stars that wink at you and me.*  
—Henry Herbert Knibbs, "The Little Fires"

♦ 3 ♦

## The Spanish Foundation

CONCEALED and nearly obliterated beneath the dust of migratory ovine hooves, the paths and highways of the conquistador and his Hispanic soldiery have laid buried for over four centuries. Not only did the wether and yeld ewe (provided for the meat ration), travel with the trains of the Spanish armies—grazing the herbage of each day's march and bedding down near each night's bivouac—but breeding flocks accompanied settlers into the new provinces and established themselves in unfamiliar environments. This held true even at times when the new community could barely hold its own against the invaded Indian. Sheep trails were super-imposed over every primitive highway of the Western Hemisphere, and thousands of its byways have been trod only by sheep since the native hunter and his game disappeared in the long ago. Streams that ultimately became channels of commerce watered ewes and lambs along their barren banks almost as soon as the explorer discovered and defined their courses.

\* \* \*

The fifth of October, 1493, dawned no differently from any other day at the

port of Gomera in the Canary Islands. Importance attached itself to the fact that the Genoan admiral, Christopher Columbus, was in command of a fleet of three galleons and fourteen caravels which put into harbor for supplies that day. This undertaking was his second voyage to the Western Hemisphere, and among the fifteen hundred men in the expedition were included settlers for the new countries he had discovered. The squadron took on wood and water, and the crew hauled overside an unspecified number of sheep, goats, cattle, and calves, as well as eight hogs, with which to stock the new colonies. These were the first domestic animals to be trans-shipped from the Old World to the New, and to establish themselves in the new environment.

The fleet set sail from Spain on September 24. By November 3 it sighted Española (modern Santo Domingo), where a small colony was established with a few sheep and cattle to serve as breeding nuclei. Weighing anchor again, the ships reached the harbor of Isabella in the Island of Cuba about mid-December, where was founded the first Christian city of the New World. A mining

camp also was established at San Tomaso, and sheep and other animals were left at both places.

Livestock breeding held as much interest for Columbus as did gold and glory. In a report to the financial comptroller of Castile, Columbus stated that Espanola was excellent for the breeding of livestock of all sorts and for the building of towns and villages. His first acts in Espanola were to establish ranches, since stockmen had been included among the colonists. So keen was Columbus' own interest in husbandry that, in 1496, he urged the King by letter to issue licenses to search for gold during limited seasons only, in order that the settlers' attention should not be distracted from agricultural pursuits.<sup>1</sup>

Spanish records as to the actual numbers of livestock in each expedition to the New World are rare. Normally there was carried at the end of each shipping list the mere statement that sheep, cattle, swine, horses, or mares were included. Wherever livestock arrived, steps were taken immediately to facilitate breeding. Later vessels brought more sheep to Espanola and Cuba, but according to Las Casas<sup>2</sup> the swine which ultimately populated the Spanish colonies were descended from the eight original porkers brought by Columbus, whose immediate destiny proved to be pork procreation and not pork production.

#### SETTLING THE ISLANDS

Spain was not so well stocked with sheep or other livestock that she could knowingly undertake the populating of two continents, each larger than Europe. The settlement of islands off the mainland, however, provided safe places for breeding farms and the multiplication of numbers, and this circumstance enabled the enterprise to succeed.

Transportation of livestock to the

New World was no easy matter. A good passage from Spain to the Indies required two to three months and animal deaths often exceeded 50 per cent. Cattle and horses occupied the main deck, while sheep and goats were given some cover from the spray. When the great calms came, and fresh water seemed about to be exhausted, all livestock was sent over-side to drown. These difficulties stimulated the later custom in settlements faced by Indian onslaughts of freeing livestock to breed under feral conditions. The chance of their survival until the land could be reconquered was usually greater than the chance of flocks and herds being restocked from Spain.

The choice of Diego Columbus (son of the admiral) as second governor of Espanola provided an official under whom ranching flourished and an aristocracy of stock breeders developed. One of them, Diego de Velásquez, held property directly across the channel from Cuba and secured the privilege of establishing new ranches in the neighboring island. By 1514 he sent again to Espanola for more sheep, cattle, and horses.<sup>3</sup>

When the news filtered back to Spain that the gold of the New World was more readily found in husbandry than in mines, additional stock growers began to make their appearance in the islands, eager for grants of land. Puerto Rico was fully stocked before Cuba, as Vicente Pinzon was granted this island shortly after its discovery. In turn Jamaica, Trinidad, and the lesser islands followed,

<sup>1</sup> Robert M. Denhardt, "Spanish Horses and the New World," *The Historian of Phi Alpha Theta*, University of New Mexico, 1, 1 (Winter, 1938): 10.

<sup>2</sup> Ezra A. Carman, H. A. Heath, and John Minto, *Special Report on the History and Present Condition of the Sheep Industry of the United States*, Bureau of Animal Industry, U. S. Department of Agriculture, 18 (hereafter called *Special Report on Sheep*).

<sup>3</sup> Denhardt, "Spanish Horses and the New World," 15.

though Santo Domingo (*España*) and Jamaica developed into the two great breeding centers.

#### REACHING THE CONTINENT

As ranches became occupied and prosperous, it proved increasingly difficult for new emigrants from Spain to secure locations. Word of lands to the west had been obtained from the Indians, and expeditions to those shores were soon planned. A wealthy stockman, Francisco Córdo<sup>ba</sup>, financed an expedition of exploration to the Mexican mainland, and Velásquez sent Juan de Grijalva to confirm the reports. Grijalva returned with just the kind of news—good pastures and gold trinkets on the natives—that the Spanish appetite craved.

Desire for new expeditions reached fever heat, but neither the King of Spain nor his representatives in the New World countenanced the irresponsible pioneering which proved so picturesque and effective during the last century in advancing the western frontier across the United States. Formal preparations had to be made. But instead of Grijalva, another successful rancher was chosen by Velásquez to command the expedition, and this leader invested all the money he had earned on his ranch. He also contributed all the materials, horses, and equipment from it that could be spared. So thoroughly did he prepare to leave the country for the new field of adventure that Velásquez then attempted to relieve him of command. But news of this move traveled quickly. Before effective measures could be taken to hold up his departure, the new commander, Hernando Cortés, was on his way toward the conquest of Mexico. Technically a rebel, he burned his ships on the Mexican coast and committed his future to that country.

When the Aztec rule crumbled before him in 1519–21, Cortés sent back to San

Domingo for more sheep and cattle, and he imported large numbers of "Merinos" during the next decade.<sup>4</sup> His immediate motive was to build an industry that would overshadow that of the Islands. Not much attention was paid, however, to any class of livestock until Cortés returned to Mexico in 1530, following his personal report of the King of Spain. Cortés then established a residence in Cuernavaca on the south side of the Cordilleras. Here he became America's pioneer *ranchero*, with ranches at Matlaltzinco in the valley of Oaxaca, as well as at Tlatlizapán, and with tilled lands covering the floor of the Oaxaca Valley.<sup>5</sup> As far as the eye could reach, his flocks and herds grazed.

Sheep were taken to the Isthmus in 1521. From Panama and Cuernavaca flocks spread rapidly into both continents. In 1555 an Englishman, Robert Tomson,<sup>6</sup> extolled the "great increase in sheep" in New Spain, and by 1560 it was reported to the Spanish viceroy that "much woolen cloth was manufactured in New Spain" that year.

#### SHEEP IN FLORIDA

Although Florida was claimed by Spain in 1513, it was 1565 before Admiral Pedro Menéndez de Avilés contracted with King Philip II to conquer and colonize Florida. His agreement called for an expedition of five hundred men who were to be supplied with a slave apiece; and the livestock included six hundred sheep and lambs, two hundred cattle, four hundred hogs, and two hundred horses. On September 4, he anchored off the mouth of the St. Johns River with a fleet of eleven ships. The

<sup>4</sup> William H. Prescott, *History of the Conquest of Mexico*, 281.

<sup>5</sup> Denhardt, "Spanish Horses and the New World," 16.

<sup>6</sup> George Parker Winship, "The Coronado Expedition, 1540–1542," *Fourteenth Annual Report, Bureau of Ethnology* (1892–93), 375.

next day, after driving off vessels of some French Huguenots also bent on establishing a colony, he sailed down the coast to an inlet which he christened St. Augustine. Here three of his ships debarked troops, guns, slaves, and stores; entrenchments were prepared; and the oldest existing city in the United States was established.<sup>7</sup> Spanish sheep were landed and that section of the country was launched in the sheep business. More than a hundred of the colonists were stockmen and farmers. It seems evident that Spanish Florida was then considered to be best suited to sheep, goats, horses, and swine, although a few cattle were left. By 1650 seventy-two missions and eight large towns had been established, with accompanying herds and flocks.<sup>8</sup> Two royal haciendas bred sheep, horses, and swine, whence came those supplied the Indians, not from de Soto as commonly supposed.<sup>9</sup> A variety of domestic animals, including sheep (brought by the Huguenots to Fort Caroline on St. John's River in 1564) were either lost or absorbed by their Spanish conquerors in 1565.

#### CABEZA DE VACA

An accident of the Narváez expedition of 1528 led indirectly to the first movement of domestic sheep across the present borders of the southwestern United States. The exploring party under the command of Alvar Núñez Cabeza de Vaca failed to rejoin the ships under Narváez somewhere along the Gulf Coast, and after eight years of wandering, four survivors reached a point near the Gulf of California. Here they encountered, in April, 1536, a group of slave raiders just south of the present Mexican frontier.<sup>10</sup> One of Cabeza de Vaca's companions was the great black Moroccan slave, Estéban. This doughty African possessed an imagination that led the conquering expeditions of New

Spain into various difficulties during the next few years. Full of tales of Indians, the "hump-backed cow" (bison), and some large pueblos, he titillated the avarice of the Spaniards until they assumed the pueblos were the legendary seven golden cities of Cibola.

#### CORONADO

Cibola provided the incentive that started off the great expedition of February, 1540, under the leadership of Francisco Vásquez de Coronado. Two hundred-fifty well-mounted horsemen, eighty Spanish foot soldiers, three hundred Indian allies, and nearly a thousand Negro and Indian servants comprised the expedition, accompanied by much livestock. The servants led the extra horses, drove the pack trains, and herded the five thousand sheep,<sup>11</sup> five hundred cattle, and unnumbered swine and mules. As they advanced their difficulties multiplied. The food supplies from the surrounding country diminished, and the trail got rockier and rougher. Both sheep and cattle wore down their hoofs so badly they became unable to travel. Coronado reported to Viceroy Mendoza<sup>12</sup> that only twenty-four lambs and four wethers finally reached the present boundaries of the United States, and that when they caught up with the army, the famished soldiers devoured the entire flock for food. However, other reports suggest that this may have been the portion of the flock intended for food purposes, and more sheep entered New

<sup>7</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 20.

<sup>8</sup> Denhardt, "Spanish Horses and the New World," 17.

<sup>9</sup> Francis Haines, "Where Did the Plains Indians Get Their Horses," *American Anthropologist*, 40, 1 (January-March, 1938) :112-17.

<sup>10</sup> Morris Bishop, *The Odyssey of Cabeza de Vaca*, 144.

<sup>11</sup> Winship, "The Coronado Expedition, 1541-1542," 542.

<sup>12</sup> *Ibid.*, 553.



FIG. 11—Coronado Expedition on Upper Rio Grande.

Mexico than the foregoing tale would indicate.

Coronado sent Captain Melchior Díaz on a side trip to the Rio Fuertes (modern Colorado River), and the Captain lost his life in preserving some of the sheep belonging to the expedition.

One day a greyhound belonging to one of the soldiers chased some sheep which they were taking along for food. When the captain noticed this, he threw his lance at the dog while his horse was running, so that it stuck in the ground, and not being able to stop his horse, he went over the lance, so that it nailed him through the thighs and the iron came out behind, rupturing his bladder.... He lived about twenty days, during which they proceeded with great difficulty on account of the necessity of carrying him.<sup>13</sup>

With the wounding of their leader the soldiers turned back, having to fight with Indians every day until Díaz's death.

Concurrently another of Coronado's leaders, Captain Tovar, struck the Colorado farther upstream. The natives told him of the strangers in Cibola (Coronado's main expedition) and described

by sign and picture language the "little black beastes with wool and horns" that they had with them (partial evidence that the twenty-four lambs and four wethers eaten by Coronado's hungry soldiers did not comprise the last of his sheep resources). Knowledge of sheep had thus spread far beyond Coronado's columns, and the report indicates that *black* sheep were among those brought into the Southwest.<sup>14</sup>

#### SHEEP COLONIZE IN NEW MEXICO

When Coronado withdrew to New Spain (Mexico) in April, 1542, two Franciscan friars remained behind—Juan de Padilla and Luis de Escalona (a lay brother)—whose mission was to Christianize the natives. Coronado provided an escort to take the two friars as far as Cicuyé (modern Pecos), and

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<sup>13</sup> Winship, "The Coronado Expedition, 1541-1542," 501.

<sup>14</sup> *Ibid.*, 535.

Castañeda reports that a number of sheep were left with Escalona.<sup>15</sup> On November 25 the latter was murdered at Tiguex, near modern Bernalillo, New Mexico, where he had gone to erect a cross and stay until the first baptism had been completed. Fray Juan de Padilla proceeded with his band of sheep from Cicuyé toward Quivira, but he too was killed en route. Where these bands of sheep originated is a question (if one accepts Coronado's statement that the last of his sheep were eaten), but there is definite record of their existence. These stories would seem to confirm the fact that sheep were denizens of the Southwest after Coronado withdrew. Whether any descendants of his sheep survived the thirty-nine years which passed before sheep again traveled north out of New Spain is not known. It is possible, despite the fact that it is difficult for domestic flocks to perpetuate themselves in a feral state. Moreover, the Indians of that day had had little experience in handling domestic animals.

Two wisps of evidence exist that they may have done so, but neither is very definite. Some of Coronado's servants disappeared during his stay in New Mexico, and some students link a few crudely-woven woolen relics in sixteenth century pueblos on the Rio Blanco with them. Such servants knew about sheep keeping.<sup>16</sup> The second circumstance is a little less tenuous. In the season of 1582-83, Antonio de Espejo led an expedition into New Mexico, and sent an expedition up into the Moqui (Hopi) country. The head constable of his camp, Diego Pérez de Luxan, kept a record of the march. He reported that the women, girls, and children of the Moquis were "in the mountains with their flocks." It was forty years since the sheep had been left three hundred miles to the east, and other Indian tribes intervened geographically. Perhaps the

Moquis bartered for them, or perhaps they had been obtained through raids. Hammond believes, however, that the flocks may not have been sheep at all, but turkeys instead.<sup>17</sup>

#### NORTHERN MEXICO

During the period of these expeditions, sheep production in northern Mexico had been building up rapidly. The discovery of the silver mines around Zacatecas in the middle of the century had given a strong impulse to the northward movement of the pastoral industries. By 1562 government was set up in the new province of Nueva Vizcaya, covering parts of modern Chihuahua, Durango, Sinaloa, and Sonora, to the east of the Sierras. The fertile river bottoms, grassy plains, and broad meadows of this region stimulated an increase in herds and flocks, as well as incursions on the part of the Indians. In 1564 Governor Ibarra founded the city of Cináro on the Fuerte River (north of the Rio Sinaloa). Coincidentally he introduced horses, cattle, and sheep. A native uprising destroyed the city, but when Hernando de Trigo returned in 1584 he found great herds of cattle and horses grazing the bottoms, apparently in a state of nature. Sheep were not mentioned as survivors, however.

Herrera notes that sheep, goats, and swine were also numerous in Nueva Galicia<sup>18</sup> and that they were bred with

<sup>15</sup> Winship, "The Coronado Expedition, 1541-1542," 592.

<sup>16</sup> Floyd V. Studer, Amarillo, Texas. Interview with author, February 7, 1940.

<sup>17</sup> Diego Pérez de Luxan, *Expedition Into New Mexico Made by Antonio de Espejo, 1582-1583*, 95. Dr. George Hammond says, "These flocks were presumably turkeys, although sheep were known since the time of Coronado." From the Spanish context the translation would more probably be "sheep" or "goats," but the historical grounds for turkeys are quite probable.

<sup>18</sup> Antonio de Herrera y Tordesillas, *Historia General de los Hechos de Los Castellanos en las islas i terra firma del mar oceano*, Vol. 3:181.

less trouble than in Spain. Most of the Spaniards in that province lived by breeding livestock, by farming, or by trading. Around Chiapa there were also great stores of sheep, goats, and cattle. In 1595 more than two hundred thousand head of sheep, fifty thousand head of cattle, and four thousand head each of horses and mules were driven from Nueva Galicia to Mexico City and sold there.<sup>19</sup>

#### DON JUAN DE OÑATE

By 1595 the Mexican settlements had advanced far enough northward that the lines of communication could be protected from the Indians, so that permanent settlements could be projected into the country pioneered by Coronado. Don Juan de Oñate of Zacatecas, principal owner of one of the rich silver lodes in that vicinity, a man of unsullied honor and religious uprightness, was given the contract for the conquest. Among the supplies he agreed to furnish were three thousand sheep for wool, one thousand sheep for mutton, one thousand goats, and one thousand cattle, in addition to horses, mules, work oxen, and hundreds of other items which experience indicated were necessary for permanent settlement. The expedition finally moved January 26, 1598, short 483 wool sheep and 617 muttons at the official inspection.

When his expedition reached the Rio Concho, which flows northerly and empties into the Rio Grande opposite Presidio, Texas, a bridge had to be built to transport the sheep over the swollen river, since several were lost when the attempt was made to swim them. Faced by the scornful attitude of Inspector Salazar, Oñate floated two dozen great wheels from his *carretas* into the river, lashed them with ropes some distance apart, and laid logs, brush, and dirt to form a pontoon bridge that enabled his

sheep to cross dry-hoofed. Short work dismantled the structure as night fell.<sup>20</sup>

The expedition continued up the Rio Grande, with an adventure at El Paso del Norte where the Indians aided in crossing the sheep over the river, until the center of what was to become Oñate's new territory was reached in the northern mountain valleys of central New Mexico. Here, near the junction of the Chama with the Rio Grande, grass was plentiful and rainfall was ample. At this point, on September 8, 1598, the chapel of San Juan Bautista was consecrated. In 1609, Oñate's successor, Peralta, founded Santa Fe.<sup>21</sup> When the conquest was completed, the wool-growing industry was firmly established within the present borders of the United States. The sheep, whose progeny eventually populated the southwestern plains and mountains, the Pacific Coast, and the modern range area, covered large sections of modern New Mexico. Spanish, rather than British or French sheep, laid the foundations of the commercial American sheep industry.

The seventeenth century in New Mexico was punctuated by the terrible Pueblo Indian revolt of 1680. Only those settlers escaped who fled to the capital. Sheep, goats, and cattle alike fell into the Indians' hands. For twelve years the breeding of the flocks degenerated into mere reproduction. Yet the numbers increased after the reconquest by Vargas. By the end of the eighteenth century sheep husbandry covered the whole of New Mexico. Ownership gradually came to be concentrated in the hands of a relatively few Spanish families,

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<sup>19</sup> Matias de la Mota Padilla, *Historia de la Conquista de la Provincia de la Nueva-Galicia*, 318.

<sup>20</sup> Gaspar Pérez de Villagra, *History of New Mexico*, 101.

<sup>21</sup> George P. Hammond, *Don Juan de Oñate and the Founding of New Mexico*, 90-91.

and these owners knew neither the number nor value of their flocks. Except for the Indian menace, the eighteenth century passed peacefully for the sheep owner and flockmaster.

#### FATHER EUSEBIO KINO

In the region that later became Arizona (northern Pimería Alta), the first breeding sheep were introduced about 1700 from Mexico by Father Kino for his freshly established missions of San Gabriel de Guevavi, San José de Tumacácori, and San Xavier del Bac (Tucson). On April 24, 1700, Father Kino's diary recorded eighty-four head of sheep and goats at Guevavi, and two days later he saw forty head at San Xavier. Soon he had equipped the Indians at the Pima villages on the Gila River with sheep and cattle.

Even in those early days the Apaches raided the little settlements which Father Kino established. Differing from the Pueblos and Navajos, they did not care to grow sheep, and killed all stolen flocks for food. In February, 1697, they at-

tacked Cocospera and carried off all the sheep and cattle to the hills. A month later a band of six hundred descended on the *ranchería* Santa Cruz on the San Pedro River, destroying it and carrying off all cattle and sheep. They were intercepted by a large band of Pimas under their converted chieftan El Coro, who killed or wounded half of the Apaches and compelled the rest to make terms with the Spanish. Under the protection of the Pimas both sheep and cattle prospered throughout the next century.

The sheep industry was also booming in Mexico during this period, and throughout the first half of the eighteenth century both Nueva Vizcaya and Nueva Galicia were raising large volumes of livestock. Mota Padilla reports that during those five decades, five hundred thousand head of cattle and two hundred thousand head of swine were driven annually to the markets near Mexico City, and well over a million sheep were trailed into New Spain to be shorn. In 1776 Father Font, an itinerant mission-



FIG. 12—Prehistoric artist depicting vicugna-like animals on rocky wall in Southwest.

ary who traveled the country, stated that the Pimas on the Gila River continued to have productive bands<sup>22</sup> and the Papagos who lived by the missions also possessed large flocks. The previous year Escalante found thirty thousand sheep at the Hopi pueblos,<sup>23</sup> while Garcés<sup>24</sup> made supporting observations in 1776. On the steep ascent to Oraibi Pueblo, Garcés discovered three flocks in one sheepfold and noted that the ewes were larger than those of Sonora and that the black ones had a finer color. Four years later Governor Anza stated that a three-season drouth had reduced the flocks to three hundred head.<sup>25</sup>

#### BEGINNINGS IN TEXAS

Texas was the second region inside the present boundaries of the United States to receive particular attention from New Spain in developing sheep production. The necessity for a land connection between the settlements in Mexico and Florida was fairly obvious, and several times colonies bridging the intervening regions were projected. Not all the initiative came from the Spaniards themselves. In 1674 Indians north of the Rio Grande requested priests and missions. Fernando del Bosque was sent by Balcarcél, governor of the newly-organized province of Nueva Estremadura (Coahuila), to visit them. Crossing the Rio Grande near modern Eagle Pass, he penetrated the Texas of today two hundred miles, into the heart of the modern sheep country-reaching a spot somewhere in Edwards County.

Two years later, 1676, the Tejas Indians on the far Louisiana frontier demanded help. From the viewpoint of that day, this locality was the real Texas, the home of the Tejas Indians. The northern and eastern boundary coincided with the Red River, the Gulf of Mexico furnished the southern limits, and the Nêches River, which enters the Gulf

past Beaumont, formed the western frontier. The capital of that region was established at the little presidio of Los Adaes, which was not founded until 1716, a few leagues west of Natchitoches, Louisiana. Further settlements were developed at Los Ais, on the Ayish Bayou, Nacogdoches, and missions were established on the Angelina River. This little Texas was a true buffer colony. Its Indian troubles, especially from tribes across or up the Red River, left it in a state of constant turmoil, and the hostile French influence led to the constant harassment of the left flank of the settlements. The defense problems on the Angelina River were so acute that stock raising could not develop there under Spanish rule, and the settlements were supplied through illicit trading with the French at Natchitoches.

The missions which resulted from del Bosque's visit were finally built at San Juan Bautista (near Eagle Pass) in Coahuila, south of the Rio Grande. By the end of 1683 seven tribes also had missions and flocks at La Junta, much farther west, where the Rio Concho flowed into the Rio Grande (modern Presidio, Texas, and Ojinaga, Chihuahua). For three and a half decades after this the Spanish confined their attention to the development of these missions. In 1718 Martin de Alarcón entered the San Antonio River Valley and founded the presidio of San Antonio de Bexar. Sheep were the outstanding industrial support of the new village, located within the limits of present San Antonio. Concurrently the mission of San Antonio de Valero was

<sup>22</sup> Hammond, *Don Juan de Oñate and the Founding of New Mexico*, 180.

<sup>23</sup> Herbert E. Bolton, *Padre on Horseback*, 53, 65, 66, 69.

<sup>24</sup> Elliott Coues, *On the Trail of a Spanish Pioneer: The Diary and Itinerary of Francisco Garcés*, Vol. 2:361.

<sup>25</sup> Z. Englehardt, *The Franciscans in Arizona*, Part II:207.

established. This today is Texas' historic shrine of "The Alamo." By 1727 this mission possessed 543 head of sheep and goats,<sup>26</sup> and La Punta, a short distance away, boasted 870 head. Two years after the founding of San Antonio de Valero, a mission named Concepción was established a few miles down the river, while in 1731 some of the missions on the Angelina River to the east were re-established within twelve miles of San Antonio. All were furnished with flocks.

A third group of settlements was made on the lower Guadalupe River, near modern Victoria, around the presidio called La Bahia. The accompanying mission was Espíritu Santo, and the flocks and agriculture were particularly strong here between 1726 and 1749.

Bands of sheep and herds of cattle and horses were highly significant in the development of the Southwest. The savage races of Texas never proved as adept in handling cattle as those of New Mexico, but the wild tribes of the North, especially the Comanches, became more powerful than ever when they mastered horses. Sheep fitted into the mission programs with the agricultural Indians, however. They furnished both food and fabric, and much of the work in caring for them was detailed and could be readily supervised by the priest. Spanish missions were true promotional institutions. They advanced the frontier through the establishment of the villages for the Christianized Indians, and the latter provided the labor to develop agricultural and pastoral pursuits. It was the missionaries' purpose to make the Indians self-supporting, and the discipline with which the workshops, gardens, farms, and ranches were conducted, soon provided both missions and communities with a protective staff of semi-civilized workers.

Most of the work was accomplished

by one or two priests who directed the labors of the Indian neophytes, with the aid of the disciplinary powers of two or three soldiers. By 1745, the ranches of the combined four missions pastured over nine thousand sheep, goats, and horses. At San Antonio de Valero there were workshops for spinning and weaving fabrics of wool and cotton, while the mission of San Juan Bautista over on the Rio Grande had progressed even farther in textile finishing.<sup>27</sup> So successful was the practice of husbandry at Espíritu Santo on the Guadalupe that the Indians cared for unusually large herds of mission livestock,<sup>28</sup> and many disputes arose between the padres and their secular neighbors because of the unauthorized slaughter of mission-owned sheep and cattle.

#### TRAILS INTO TEXAS

Trails into the early Southwest were not numerous. Gulf and border tribes made access from Mexico difficult, and the original route into New Mexico was widely separated from the first path into Texas. This trail ran from Saltillo and Coahuila, via San Juan Bautista (Eagle Pass, nearly three hundred miles above the mouth of the Rio Grande), and on northeastward to San Antonio. The safety and usability of the Texas section of the trail depended on the friendliness of the Coahuiltecan Indians. The war-like Apaches, on the other hand, and especially the Lipan tribe located in the territory of the San Saba and Colorado rivers to the northwest of San Antonio, created a sturdy barrier against northward and westward expansion that was not broken until after Texas became

<sup>26</sup> Eugene C. Barker, *Readings in Texas History*, 35-39.

<sup>27</sup> H. E. Bolton, *Texas in the Middle Eighteenth Century*, 18-20.

<sup>28</sup> *Ibid.*, 19-20.



FIG. 13a—Greenland sheep in mountain pasture near Julianehaab.



FIG. 13b—Sheep barns near Julianehaab. (Photos from K. N. Christiansen.)



FIG. 14—Greenland sheep returning to mountain slopes by boat, following winter grazing. (Photo from K. N. Christiansen.)

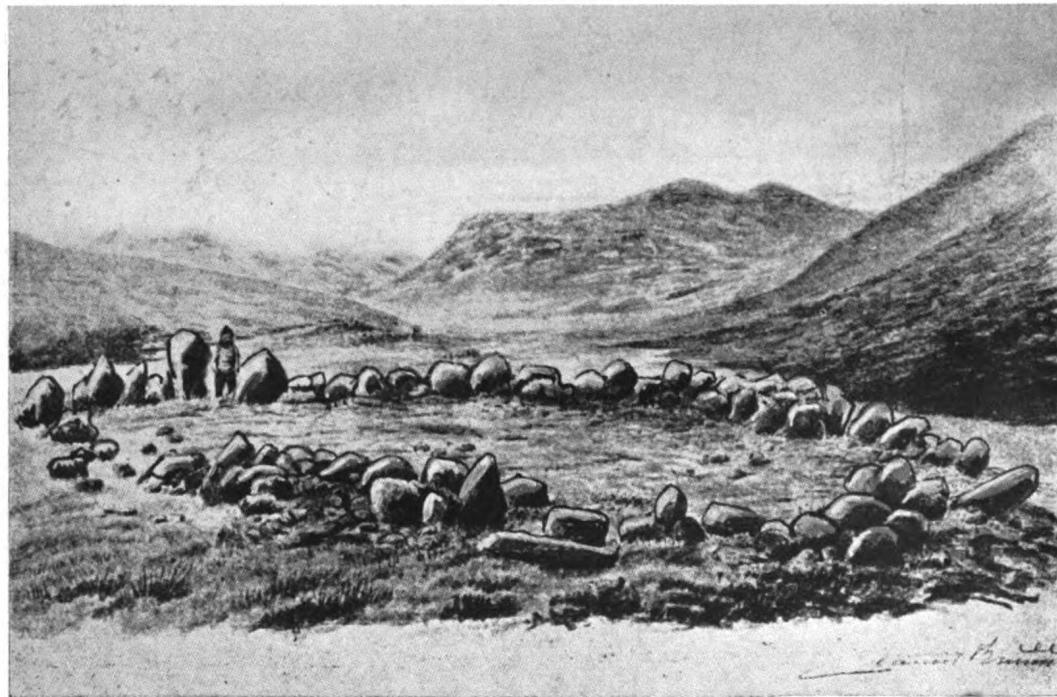


FIG. 15—Round sheepfold at Ininguit (Arsukfjord) in Eastern Greenland settlement, discovered by Daniel Bruun in 1894 (p. 17).

part of the United States. Hence a different type of sheep developed in Texas, from the flocks entering from Coahuila, than developed in New Mexico from the flocks of Nueva Vizcaya. The effects of two different types of grazing lands in Mexico already were expressed in the wool and conformation of the sheep before they crossed the borders.

#### EXPANDING TEXAS FLOCKS

During the middle of the century attempts were made to expand to the north of San Antonio, in the vicinity of present-day Rockdale on the San Gabriel River. The San Xavier mission was established here, but it had to be moved with all of its flocks southward to the San Marcos River in 1755. Along the coast two new villas were established north of the Rio Grande and twelve to the south, the one at the mouth of the Nueces comprising fifty families. In 1754, the Villa Laredo was founded. It became the important crossing on the Rio Grande for the highway and trailing route from Saltillo to San Antonio. This was a crossing that ultimately displaced San Juan Bautista. The whole Rio Grande Valley settled rapidly with strings of *ranchos* extending up and down. Thousands of sheep, goats, and cattle grazed on each side of the stream.<sup>29</sup>

Attempts were made also to develop settlements in the region between the San Antonio Valley and Los Adaes, but nothing permanent resulted. Such sheep as were sent there were stolen by the Indians or were traded illicitly to the French. But the older missions continued their development. At the San Francisco mission near San Antonio there were four thousand sheep and goats, and the four missions of the vicinity totalled over twelve thousand head. However there was a region from there to the French settlements, three hundred miles

long and two hundred miles wide, in which no flocks were preserved.

#### THE LOUISIANA BORDER

Louisiana was ceded to Spain by France in 1762, though it was 1769 before it came fully under Spanish control. Many of the older French officers were retained under the new regime. Among them was Athanase de Mezières, who had been a captain in Natchitoches. Early in 1776 he reported to the Spanish viceroy in Mexico City<sup>30</sup> that there were approximately three hundred sheep and goats near Natchitoches, under French ownership. Many of them bore Spanish brands and probably had been stolen from the Spanish settlements farther west. De Mezières was quite interested in the movement of livestock shortly after taking office. He recommended routes for trailing in the fall, pointing out<sup>31</sup> the difficulty of taking large droves of sheep or cattle at other seasons of the year, due to fording rivers and finding feed.

On March 17, 1779, the current prices of different classes of livestock in the villa of San Fernando de Bexar, and its vicinity, were reported by him to Governor Bernardo de Galvez as follows:

A fat cow .....	4 pesos
A three-year-old sheep .....	6 "
A breeding ewe .....	3 "
Goats, per head .....	3 "
Half broken horses, per head.....	6 "
Mares in droves, per head .....	1 "
Wild mules, male and female, per head .....	8 " ■

The relative values of the different classes of livestock are interesting. A

<sup>29</sup> Bolton, *Texas in the Middle Eighteenth Century*, 58-59.

<sup>30</sup> H. E. Bolton, *Athanase de Mézières and the Louisiana-Texas Frontier, 1768-80*, Vol. 2:120.

<sup>31</sup> *Ibid.*, 242.

<sup>32</sup> *Ibid.*, 241.

three-year-old sheep was then worth more than a fat cow, and as much as a half broken horse. Why wild mules were worth more than either is difficult to estimate, although long before this time the Spanish rulers were worried over the decadence in Spanish horsemanship and the preference for mules.

#### LOWER CALIFORNIA

Spain's third line of northward ovine advance entered California. Sheep moved into this state with the missions. Before July 6, 1769, the date on which Mission San Diego de Alcalá was founded in Upper California, much ground work had to be accomplished in the peninsula to the south. Jesuit pioneers began work there before 1600, crossing over from the Mexican coast and undergoing extreme hardships and privations in the torrid, barren country.

The first point to receive sheep and cattle was Loreto on the bay of San Dionísio. On October 19, 1697, Fray Salvatierra, a Jesuit brother working with Father Kino (who did so much for Arizona and Sonora) landed both species at this settlement. The country was so unfavorable that the sheep did not spread away from the missions, however, and were transferred to new localities only as the Jesuit fathers, especially Father Taraval, transported them. The business manager of these new missions, Father Juan Ugarte, outfitted each new expedition with livestock and provided supplies to carry the colonists through the barren winters. His sheep developed rapidly and he was forced personally to make distaffs, spinning wheels, and looms. Finally he sent to Tepic for a master weaver, Antonio Moran, to instruct the Indians in weaving and other handicrafts.

By 1767, when Charles III expelled the Jesuits from all Spanish dominions,

fourteen missions were in operation. The Franciscans took over the properties of the Jesuits but they were soon followed by the Dominicans, and it took years to restore the confidence of the natives and rebuild the flocks.

#### UPPER CALIFORNIA

The expulsion of the Jesuits from Lower California turned the attention of the Spanish viceroy in Mexico City to the two Californias, and led to a decision to colonize and civilize the upper province. This enterprise was entrusted to the Franciscan order. Father Junípero Serra in 1768 was made missionary president of Upper California, attended by a staff of sixteen brothers of his Order. With military and government officials in support, two expeditions by sea paralleled two by land. The second of the latter was equipped with two hundred head of black cattle and a flock of sheep to supply the mission planned for the bay of San Diego.

The principal land expedition, which Father Serra accompanied, was under command of Don Gaspar de Portolá, a captain of dragoons, who was also appointed Governor of California. The first section of the land expedition under Rivera y Moncada went around by the pueblo of Nuestra Señora la Reina de Los Angeles (modern Los Angeles), then on the edge of the Indian country, down to the bay of San Luis. This region proved incapable that season of maintaining livestock. The contingent then traveled southward eighteen leagues (fifty-four miles) in the direction of San Diego, where it arrived May 14, 1769. The main division arrived July 1, to find both sea expeditions there also. As soon as the ceremonies of founding the new mission were completed, provisions were made for handling the cattle and sheep, "which may be called

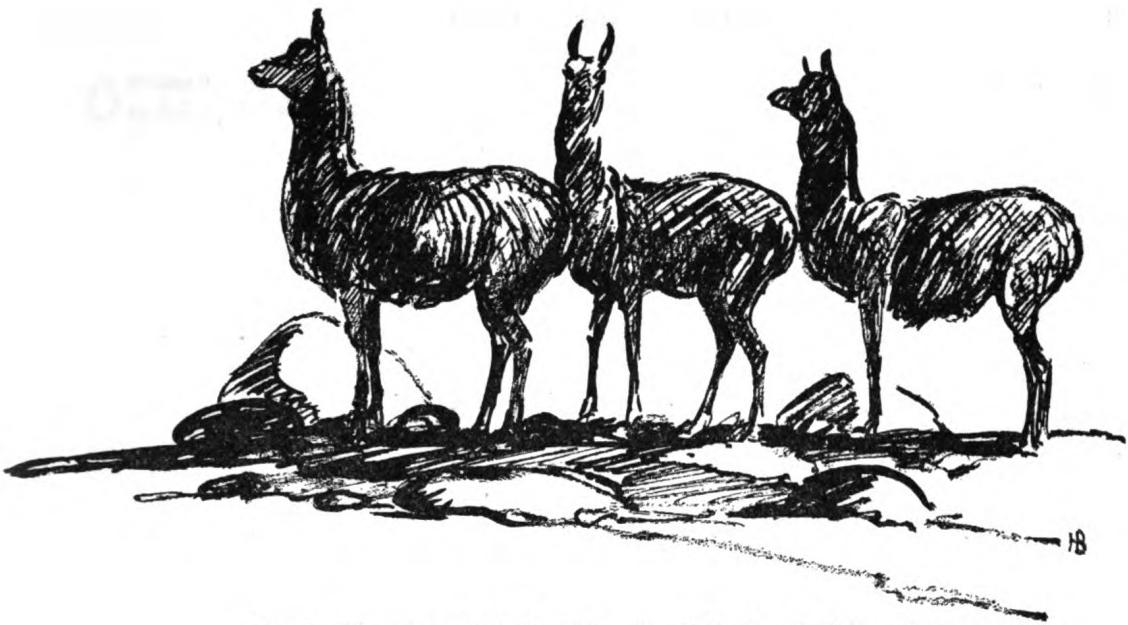


FIG. 16—Vicugnas, called "Peruvian sheep" by the Spanish explorers.

the original of all the herds and flocks of Alta (Upper) California."<sup>33</sup>

The establishment of San Diego de Alcalá was only a beginning. Almost immediately an expedition traveled overland from San Diego to discover a land route whereby the port of Monterey could be settled. After six months it returned, believing itself unsuccessful in its mission. However, the fine harbor of San Francisco had been discovered, and it was named for the founder of the Franciscan Order.

Monterey was finally reached from the sea on May 31, 1770, and the San Carlos de Borromeo (later called the Carmel) mission was founded. Soon the string of missions extended to a point north of San Francisco. When the first annual report on the work of the missions was made in 1773, Father Palou reported that each had received eighteen head of horned cattle, and had on hand thirty-eight to forty-seven head. This aggregated two hundred and four, with sixty-three horses, seventy-nine mules, one hundred two swine, and one hundred sixty-one sheep and goats at San Diego and San Gabriel alone.<sup>34</sup>

Pedro Fages (later Spanish Governor of Upper California) reported on Upper California in 1775 to the viceroy of New Spain, describing the country over which he had traveled. His agricultural observations around the missions dealt with such subjects as the possibilities of livestock, grass, feed crops, rainfall, and irrigation, and other matters of importance to the farmer. In discussing the San Diego mission he said, "For flocks and herds there are excellent places with plenty of water and abundance of pasture."<sup>35</sup> At numerous points identified en route from San Diego to San Francisco he would report, "Water in abundance for the people, but very little for the animals." At San Gabriel mission he stated that some few Spanish families might well be brought in "without prejudice to the mission, have an assignment

<sup>33</sup> Theodore H. Hittell, *History of California*, Vol. 1:332-33.

<sup>34</sup> H. H. Bancroft, *History of California*, Vol. 1: 1542-1800, 205-6.

<sup>35</sup> Herbert Ingram Priestley, *A Historical, Political and Natural Description of California by Pedro Fages, Soldier of Spain*, 10-11.

of fertile fields, with places adapted for all kinds of livestock."<sup>36</sup>

At San Luis Obispo de Tolosa he reported that "abundant water is found in every direction and pasture for the livestock, so that no matter how large the mission grows . . . the land promises sustenance."<sup>37</sup> About the territory farther north he says, "The mission of San Antonio de Los Robles (Padua) . . . was founded . . . on the bank of a river. . . . There are places for livestock with suitable water supplies, and summer pastures in great abundance. The acorn provides lavishly for raising and fattening many hundred head of swine."<sup>38</sup>

In the twenty years that followed the founding of the first missions, thousands of sheep were introduced from Old Mexico. This was true especially after Captain Juan Bautista de Anza, governor of Tubac in the Province of Sonora (now Arizona), explored and established in 1773-74 an overland route to Monterey that proved practicable for travel and for livestock movement. An interesting sidelight on the wool situation in early Arizona-California is provided by Father Font on the second Anza expedition. On December 7, 1775, he reported seeing, near the Colorado River, several Indians wearing blankets of black wool obtained from the Moquis.<sup>39</sup> Multiplication of the missions was rapid, and the sheep were grown both for flesh and woolens. The demand of the Indians for cloth was so great that the sails of the vessels in San Diego bay were not safe. The Indians would go out at night in their canoes to cut pieces from them.<sup>40</sup>

Livestock were sent up from the Lower California missions almost annually. In 1776 Bucareli wrote de Gálvez, enclosing the following:

Memoranda of the Stock which is to be taken from the Missions of Old California for the New Establishments of San Diego and Monterey.

Kind	Number
Brood Mares	40
Stallions	3
Unbranded Horses	17
Mules	16
Jennets (4) and Jacks (2)	6
Breeding Cows	60
Bulls	4
Ewes	60
She-Goats	60
Rams and He-Goats	8
	—
	274

Besides the stock listed there are to be sent also eleven brood mares, one stallion, three little colts, and one burro belonging to the royal hacienda.—*Melchior de Peramas*<sup>41</sup>

Also in 1780 a flock came into California via the southeastern corner. Lieutenant Santiago de Islas brought a band of two hundred head from Sonora to old Yuma on the west side of the Colorado River, in an immigration project to establish a settlement on the California side.<sup>42</sup>

The woolens of California were coarse in nature. When Captain George Vancouver visited the coast in 1792 he reported that "the looms, though rudely wrought, were tolerably well contrived and had been made by the Indians. . . I saw some of the cloth, which was by no means despicable, and had it received the advantage of fulling, would have been a very decent sort of clothing."<sup>43</sup> On Vancouver's departure, the mission of San Buenaventura victualled him with a flock of sheep and as much meal as twenty mules could carry.

<sup>36</sup> Priestley, *A Historical, Political and Natural Description of California by Pedro Fages, Soldier of Spain*, 20.

<sup>37</sup> *Ibid.*, 43.

<sup>38</sup> *Ibid.*, 57.

<sup>39</sup> H. E. Bolton, *Anza's California Expedition—Font's Complete Diary of the Second Anza Expedition*, Vol. 4:52, 103.

<sup>40</sup> Alexander Forbes, *California: A History of Upper and Lower California*, 57.

<sup>41</sup> Bolton, *Anza's California Expedition—Font's Complete Diary of the Second Anza Expedition*, Vol. 5:399.

<sup>42</sup> Irving B. Richman, *California Under Spain and Mexico*, 134.

<sup>43</sup> George Vancouver, *A Voyage of Discovery to the North Pacific Ocean*, Vol. 2:11.

# OLD CALIFORNIA MISSION BRANDS



SAN DIEGO DE ALCALA  
SAN DIEGO, 1769



SAN GABRIEL ARCANGEL  
LOS ANGELES, 1771



SAN ANTONIO DE PADUA  
MONTEREY COUNTY, 1771



SAN FRANCISCO DOLORES  
SAN FRANCISCO, 1776



SANTA BARBARA  
SANTA BARBARA, 1786

FIG. 17—Brands used by California Missions during the days of Spanish development in the area.

Considerable attention was devoted to the manufacture of cloth by the government as well as by the church. While Diego de Borica was governor of Upper California from 1794 to 1800 he made a special effort to promote the raising of sheep to increase woolen manufactures, and had laws enacted which governed the selection of breeding animals. Two hundred sheep were distributed at Los Angeles in 1796, while in the north, around San Francisco, only "Merinos" were permitted. During the eight years 1790-97 the number of "Merinos" at the San Francisco de Assisi mission increased from seventeen hundred to over six thousand. There is grave doubt as to whether these were really Merinos, however. At San José, every settler was required to keep three sheep for one of any other domestic animal (barring poultry). In 1797 the importation of blankets from Mexico for use at the *presidio* was discontinued by order of Governor Borica and blankets made at the missions were substituted. He disapproved however, a scheme of the friars in 1799 to erect a fulling mill.

Conditions in California at the beginning of the colonial period were favorable to only one industry—the oldest in the world, that of the shepherd. Every circumstance was present to encourage the raising of cattle and sheep—almost unlimited pasture, plenty of water, a climate mild enough to permit the animals to live throughout the year with little or no shelter, no necessity for fences, and a large supply of easily trained workers at hand. The pastoral life with sheep and cattle developed the one great industry of Colonial California.<sup>4</sup>

## THE OLD SPANISH TRAIL

Communications between the Spanish Colonies farther east and California opened up a trail (eventually between Santa Fe and Los Angeles) that bore the hoofprints of thousands of sheep in later years. In 1774 Father Francisco Garcés chronicled the expedition of Captain Juan Bautista de Anza to establish an overland route from northern Mexico to San Francisco Bay. Two years later Antonio Bucareli, viceroy of New Spain, ordered him to continue the explorations in the vicinity of the Colorado

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<sup>4</sup> Rockwell D. Hunt and Nellie Van de Grift Sanchez, *Short History of California*, 109-10.

River.<sup>45</sup> His travels took him over the Mojave Desert and up the Colorado, which provided knowledge of this section of the trail. Later when it was decided that Santa Fe should be connected by an overland trail with Monterey, two Franciscan friars, Francisco Anastasio Dominguez and Silvestre Velez de Escalante, led a company over a zigzag route from Santa Fe up the Rio Grande, the San Juan, and north-northwest into southern Utah. A snowstorm forced to a climax the many disagreements between the military and religious members of the party, and forced the abandonment of the through trip to California. The expedition turned south, crossed the divide to the upper course of the Virgin River and thence traveled northeastward to the Colorado. This discovery eventually opened trade between the Santa Fe merchants and the Utah Indians, as well as those located in southeastern Nevada.<sup>46</sup> Here it was easy to connect with the country Garcés had visited and join with the route to Los Angeles.

Later this trail became more important. One of the American pioneers to use it was William Wolfskill and his

group of trappers in 1831,<sup>47</sup> while the first band of sheep crossed it a decade later. A flock was taken along for food purposes by the Rowland-Workman company of immigrants from New Mexico, who arrived in California in 1841.<sup>48</sup> The eastern end of this route was known as the Escalante Trail. A half century after the padres' trip, when caravans of cattle and sheep moved over it in great numbers, it became known as "The Old Spanish Trail" from Santa Fe to Los Angeles.

\* \* \*

The close of the eighteenth century saw Spanish flocks in eastern Texas, in the San Antonio region, in the mountains above Santa Fe and Taos, and throughout the New Mexico valleys, as far north as the Gila in eastern Arizona, in the Moqui country, and up to San Francisco Bay on the Pacific.<sup>49</sup>

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<sup>45</sup> Coues, *On the Trail of a Spanish Pioneer: The Diary and Itinerary of Francisco Garcés*, Vol. 2:313-469.

<sup>46</sup> Effie M. Mack, *Nevada, A History of the State*, 60-61.

<sup>47</sup> Bancroft, *History of California*, Vol. 3:386.

<sup>48</sup> Bancroft, *History of California*, Vol. 4:277.

<sup>49</sup> A fuller account of early southwestern sheep development appears in *Shepherd's Empire* by Towne and Wentworth.

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*Our native soil with wool our trade supplies  
While foreign countries envy us the prize. . . .  
Our fleecy flocks abound in every vale,  
Our bleating lambs proclaim the joyful tale.*

—Richard Fawcett

\* 4 \*

## The Eastern Colonies, 1609-1800

IT IS questionable whether, in 1607, the problem of domestic livestock concerned the British emigrants to the Jamestown Colony in Virginia. Few of these colonists were of rural origin. Probably none of them knew they were coming to a continent that lacked, with the exception of the dog, all domestic animals to which they had been accustomed. Some had been released from Debtors' Prison just before they sailed. All in all, their minds were to be devoted more thoroughly to escaping the past than to building the future.

One season's experience was necessary before they could appreciate the items required to make their new homes livable and their comfort secure. Cattle drew first call among livestock, because of their triple ability to furnish milk, meat, and draft power. But a year's wear on their English woolens, plus the cost of their replacement, made the settlers demand flocks of their own, and seek the services of trained carders, spinners, and weavers.

The first sheep came in the Susan Constant in 1607, but were consumed during the famine of the ensuing winter. A few were landed in Jamestown in August, 1609, sent out by the London company backing the Colony.<sup>1</sup> The first shipment with permanent effect was brought by Sir Thomas Dale, the new governor, in 1611. These animals were presumably of long-wooled blood, per-

haps of the old Leicestershire strain.<sup>2</sup> However, weaknesses in the stock or destruction by wolves and Indians retarded their multiplication. Nearly four decades later the total number of sheep in the Colony was only three thousand head.<sup>3</sup> In 1657 it became necessary to penalize any person transporting sheep out of Virginia. Maryland got much the same stock of sheep as the Old Dominion, while North Carolina and South Carolina obtained an excellent breed from England, in addition to some introduced from Virginia and Rhode Island.<sup>4</sup>

\* \* \*

New Netherland and the Massachusetts Bay Colony stand on a par with respect to bringing the first sheep to the North Atlantic settlements. The Dutch West India Company discharged two shiploads of livestock in 1625, including several sheep.<sup>5</sup> Amsterdam weavers were granted a monopoly in the new Colony, and the charter of 1629 forbade the manufacture of any woolen fabrics by the colonists. Hence sheep breeding progressed slowly.

The character of these first sheep is not known, but in 1630 a coarse-wooled

<sup>1</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 21.

<sup>2</sup> *Ibid.*, 87.

<sup>3</sup> *Ibid.*, 21.

<sup>4</sup> *Ibid.*, 48.

<sup>5</sup> *Ibid.*, 24.

strain, from the famous sheep-producing island of Texel, was taken to Rensselaerswyck (which included Albany) in the new Colony. The Texel breed of that day was typical of sheep in the northwestern part of Europe. Apparently it was still unimproved by blood crossed from imported strains. This breed was large of frame and long of leg, capable of fattening greatly and of yielding a two- to three-pound fleece suitable for blankets and coarse cloth. Little was accomplished for the industry during the first seven years, but Van der Donck states that the breed thrived well in New Netherlands, and was healthy. However, the sheep had so much summer pasture and winter hay that their fat mutton was "luscious and offensive."<sup>7</sup> Among other things, he pointed out that New Netherlands pastures were brushy, stumpy, and woodsy, causing most of the wool to be pulled off during pasturage, and leaving only a light shearing. Dutch children roamed the pastures, gathering wool.

When the English took over the Colony in 1664 the restrictions on weaving were slackened and the Dutch matrons soon were proudly displaying their blue, green, and red worsted stockings. By 1707 they were making good serges, linsey-wooleseys, and coarse cloth, and were supplying three-fourths of their requirements; hence the British policy became more stringent.

Before 1684 sheep were introduced to West Jersey and Delaware by the Swedes, but the Dutch strain soon spread into the former state. Then the English gained control of these colonies, sent over British breeds, and by the end of the seventeenth century their varieties were predominant. These large English sheep produced a low grade of mutton, but the growing cities of New York and Philadelphia soon developed strong

demand, and quality was improved rapidly. Pennsylvania was settled later than the surrounding colonies, but it started fulling, spinning, and weaving before it grew the necessary sheep to support the industry.<sup>7</sup> Wool was imported from Delaware and Maryland to meet Pennsylvania's requirements.

#### NEW ENGLAND

Edward Winslow took the first cattle to the Plymouth Colony in 1624, and it has been assumed that sheep came with them since records of sheep in the Colony antedate the records of their arrival. The first large shipment was in 1629 when royal permission for the exportation of livestock from Great Britain to the North American colonies was given. In 1630 eleven vessels from Southampton, England, brought seventeen hundred persons with a hundred forty cattle, sheep, goats, and horses. These settled in Lynn, Charlestown, Roxbury, Dorchester, Watertown, and Medford, around Boston. From this time forward sheep were regularly mentioned in the records of all the towns in Massachusetts.<sup>8</sup>

Wiltshire Downs and Romney Marsh sheep were both included among the flocks imported. The wrecking of a Dutch ship in 1633 and the landing of two Dutch trading schooners in 1635 brought one hundred twenty-two Dutch long-wools to the Massachusetts settlement. These were probably of the Texel breed imported into New Netherlands. By 1635, therefore, sheep were quite well established in Massachusetts. The in-

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<sup>7</sup> Adriaen Van der Donck, "Description of New Netherlands," translated by Jeremiah Johnson in *Collections of the New York Historical Society*, 2d. Series, Vol. 1 (1841) :166.

<sup>8</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 29.

<sup>9</sup> Capt. Edward Johnson, *Wonder Working Providence*, 41, 45, 46, 84.

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ventories of the settlements along the Piscataqua River on the modern New Hampshire-Maine boundary, and at Norridgewock, still farther east, listed ninety-two sheep. Johnson says the entire colony possessed three thousand sheep at that time.<sup>9</sup> Both Cambridge and Watertown had important flocks in 1636 and at Concord, despite a bad beginning, their production proved more profitable and their increase more rapid than that of any other class of livestock.

The Wiltshires were probably the best stock in England in the seventeenth century and played a prominent part in the ancestry of the Shropshire, Hampshire, and Suffolk breeds. They were large-framed slow feeders, weighing as much as two hundred fifty pounds. Their fleeces, shearing two to three pounds, were finer than those of other English breeds and showed a medium staple. However, the ewes were bare on the underline and were susceptible to disease during wet weather, or in swamps and lowlands.

Sheep came to Connecticut in 1640 and to Rhode Island in 1648, the latter receiving an exceptionally good stock of Southdowns. The Reverend John Higginson wrote a fellow divine in 1650 that there were many thousands of sheep in Rhode Island to supply clothing. By 1666 sheep and wool were outstanding staples of production at Newport, and sheep were sent by both sea and overland drives to Boston in the period 1666-70. Boston imported sugar, molasses, rum, and cotton, and traded these for livestock and its products, especially wool, ewes, wethers, pork, venison, beef, and butter.<sup>10</sup>

Experienced sheepmen did not think much of the original Colonial stock, however. Youatt, the famous English agricultural writer, designated the New England sheep as a "sort of coarse Lei-

ester, of British origin, but of the commonest kind."<sup>11</sup> Le Duc says, "The English (sheep) were long-legged, narrow-chested, light-quartered, coarse-wooled animals, by no means the highly-bred stock of English coarse-wools of the present day."<sup>12</sup>

#### GRAZING CUSTOMS

The methods of handling sheep were quite similar throughout the New England colonies. In the beginning each owner kept a few sheep around his home lot or near the village, until there were a sufficient number in the community to permit hiring a shepherd. Each town had pasture lands adjacent to it on which cattle, sheep, goats, and horses were grazed—the commons—and rules were laid down from time to time regulating their use. Because of the demand for wool, sheep raisers were quite favored and the ratio of sheep to one cow on the public pasture varied in the different localities according to the local necessities. In Boston in May, 1646, it was ordered that "any, if they desired to keep sheepe, may keep foure sheepe in lieu of a cowe," while at Rowley (between Ipswich and Newbury) in May, 1648, the general court stated, "Henceforth it shall be lawful for any man to keepe sheepe in any common, accounting five sheepe to one great beaste." In a few instances where it was necessary to encourage sheep growing

<sup>9</sup>Johnson, *Wonder Working Providence*, 104.

<sup>10</sup>Charles M. Andrews, *The Colonial Period of American History*, 60. John Higginson of Guilford, Connecticut, wrote to Thomas Thatcher, October 25, 1654, "God seems to provide in a gradual way for a supply of clothing by the multiplicity of sheep, there being many thousands in Rhode Island." (*Collections Connecticut Historical Society*, Vol. 3:318-20.)

<sup>11</sup>William Youatt, *Sheep: Their Breeds, Management and Diseases*, 54-55.

<sup>12</sup>William G. Le Duc, "Report of U. S. Commissioner of Agriculture," *Executive Document*, Senate No. 25, 45th Congress, 3rd Session, (1878), 1.

further, the ratio was stretched to six sheep to one head of cattle.

Limitations of pasturage around Boston soon led to many restrictions on the use of the commons. On April 16, 1638, the selectmen ordered all animals except milk cows and draft oxen off the pastures of Boston Neck because of the shortage of grass, specifying that "all the sheepe" and "dry cattle such as are not for draught, shall be had away from off the Necke by the laste day of this month, in penalties for every head after that time eleven shillings a weeke for every weeke after, and the sheepe not."<sup>13</sup> Whether this means that the ruling did not apply to sheep, or that the penalty did not apply to them, is not evident. However, in 1656 the Massachusetts General Court ordered all commons cleared for sheep.

When livestock were first turned onto the public pasture, the "cow-heard" had charge of all classes of animals, but as numbers were increased a "sheep-yeard" was added—though the cow-herd at first outranked him. Since sheep were harder to raise, the order of prestige was soon reversed. In 1659 the Boston shepherd was allowed sixpence for every sheep and twopence for every lamb under his charge. No sheep were permitted on "the Necke" without a keeper, and rams were kept separate from the flock from four to five months every year. This was intended to prevent winter lambing, and the period of separation usually ran from mid-June to November first. On Rumney Marsh near Boston (probably named for the sheep district of Romney Marsh in Kent, England) any inhabitant who found a ram running with the ewes on the commons between August 10 and November 10 was permitted to take possession of him, regardless of protests from the owner who allowed him to stray.

#### NIGHT FOLDING

The havoc in flocks caused by wolves stimulated a system of night-folding, frequently under guard. Close herding fertilized the land, and each settler tried to claim the privilege of holding the flock on his fields. The sheep were therefore restrained by movable hurdles or "gates," on the crop land of each person running sheep on the commons. In some cases the number of sheep allowed on a man's field was determined by the number of "gates" he furnished, thus regulating the size of the enclosure. But in most cases the whole flock was placed in the night-fold, and the number of nights they were left on each person's property was in proportion to the number of sheep owned. The town of Rowley first used the gate system on the commons only, with the protective measure in mind. In 1643 it ordered that "to the end that every man may have an equal share in the commons according to purchase, it is agreed that every 1½ acres house-lot shall have 1½ gates; that every 2 acres shall have 4½ gates; 3 acres, 13½; 4 acres, 22; 6 acres, 45."<sup>14</sup> This meant that each sheep owner having land furnished gates in the above ratios.

A little later the custom developed of signing agreements among small groups of owners whereby each took his proportionate turn in receiving the benefit of the sheep on his fields. One particular group operated at Newbury, Massachusetts, where the selectman had divided part of the commons into five distinct grazing grounds, each to be occupied by a particular flock of sheep. Penalties of five pence per head were provided against sheep so "disorderly" as to be in the wrong pasture, and the owners using

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<sup>13</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 36.

<sup>14</sup> *Ibid.*, 37.

each pasture were thus protected against trespass.

One company of eight members owned 704 sheep, the largest single ownership being 105 head, and the smallest, 12 head. These members ran an average of sixty-four head, while eight other persons who ran sheep with them averaged twenty-four head. This latter figure was about the average for the colony as a whole, which ranged from twenty to twenty-five head. For the year 1683 Evan Morris, a shepherd, was hired at the rate of six shillings per week, with board at the place where the sheep were folded.<sup>15</sup> Those owning more than forty sheep paid a shilling per week, and those that held under thirty paid sixpence. What those owning between thirty and forty paid is still a mystery!

The folding started on April 23, on Richard Brown's corn field, and each person participating brought one "gate" for each twenty sheep, or final fraction thereof, that he owned. These were set up to form a pen, and the sheep were run there the prescribed time. Then they were moved to Cousin Pettingill's,

and so on, each member receiving the "full benefits" of the top dressing from the entire flock. Sometimes this movement from place to place was difficult to regulate, and then the pen was erected on the common land where the sheep were folded each night. At a suitable time the fold was ploughed, turnips planted, and the crop divided in proportion to the number of sheep.

#### THE SHEPHERD'S SUNDAY

The spiritual welfare of the shepherd was also a problem for those that hired him, and arrangements had to be made so that he could have frequent church opportunities on the Sabbath. In Hatfield in 1693 the shepherd was relieved of the care of the sheep on nine Sundays out of ten, that he might attend worship, while the owners took their turns with the flocks on the other Sundays.<sup>16</sup> In Haverhill the shepherd went to church every Sunday, and was not permitted to turn out his flock until the "second beat-

<sup>15</sup> Joshua Coffin, *History of Newbury*, 137-39.

<sup>16</sup> Sylvester Judd, *History of Hadley*, 103.

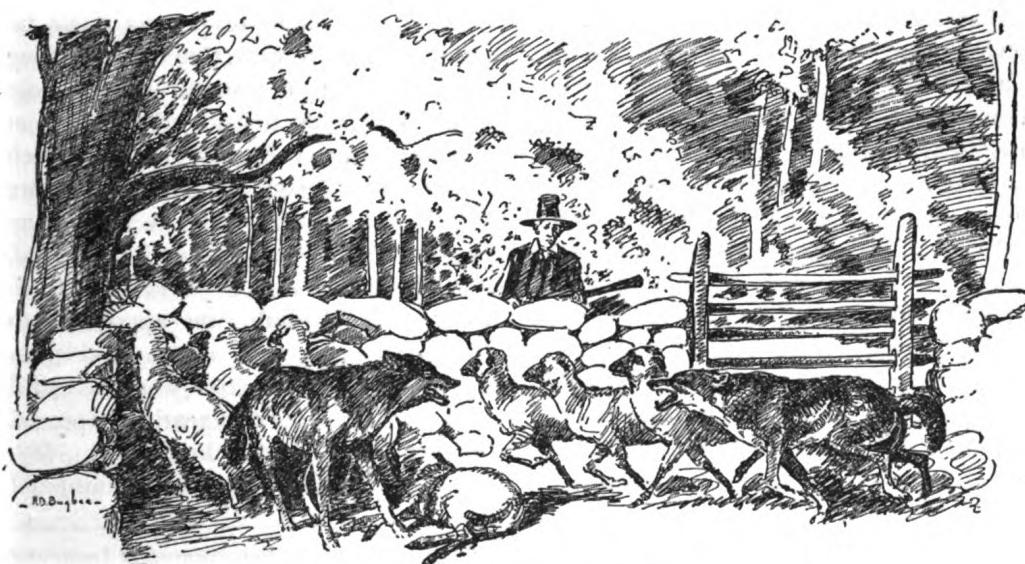


FIG. 18—Wolves in a colonial flock.

ing of the drum." Up to 1684 this rule applied to "cow-heards" only, after which shepherds were included.

#### NANTUCKET

Because of security from wolves and Indians, and because of relative freedom from disease and parasites, it was early a custom to locate commons on the islands and peninsulas off the coast. Thus the settlement at Lynn used the peninsula of Nahant. On many islands the owners never saw the sheep from one shearing season to the next, and the rugged climate of the islands exercised a rigorous natural selection that ultimately resulted in a vigorous, hardy flock. Even as late as 1905 many of the islands off the coast of Maine still carried descendants of these primitive enterprises.

Success in this endeavor turned the attention of certain religious dissenters to Nantucket. The island was claimed by the Dutch who also held New Netherlands and Long Island. Under the original plan for acquisition, ten men (Quakers) each agreed to invite another friend to participate, so that they might divide the ownership of the proposed new settlement into twenty shares. This plan failed to produce the necessary money, so fourteen other persons were invited to purchase a half-share apiece, making a total of twenty-seven shares. House lots a thousand feet square were set aside in a group on the island for each full-share owner, while half-share owners were granted lots one thousand by five hundred feet. The total land in the first homesteads was slightly over twenty acres. Of this approximately two-and-a-half acres were in the house lots and the rest in the tillable fields.

From the start the Nantucket settlement was planned as a grazing community. The rights of pasturage were to be held in common in large tracts

of land, and sheep, wool, cattle, and milk were destined to be the important products. Such attempts had been made previously in England, but on a less extensive scale.<sup>17</sup> In order that the grazing would be interfered with least, a committee was appointed in 1663 to lay out corn fields. In 1669 each owner was required to furnish a bushel of grass seed for the commons, and in 1672 a harrow was purchased for public use.

The first cluster of homes formed the original village, but as the children grew up and married, a new cluster was formed until there were two foundation villages—Nantucket on a sheltered bay on the north shore and Siasconset on the eastern coast. The rest of the land purchased was set aside for common pasture. Grazing required much room and using the commons precluded the necessity of fencing. Furthermore, fences would prevent the free movement of sheep to grass and water. By 1700 over nineteen thousand acres were included in the common.

Very few disputes developed with the Indians who were living on the island at the time the first land was purchased. Efforts were made to protect their interests, but there were times when strong regulation was necessary. Indian dogs would kill sheep despite all attempts at control, so on February 15, 1667, each Indian was ordered to kill his dogs before March 10 or pay a fine. A joint committee, composed of Nathaniel Barnard, Isaac Coleman, and two Indians, Washaman and Obadiah, was appointed to carry the order into effect. Evidently the destruction of dogs was successful for the first signs of overgrazing appeared the next year. On February 12, 1668, Nathaniel Starbuck and Nathaniel

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<sup>17</sup> Henry Barnard Worth, *Nantucket Lands and Landowners*, Nantucket Historical Association, Vol. 2, Bul. 1 (1904) :83.

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Barnard were designated to travel over the commons, and if any were pasturing more livestock than their proportion, the two were authorized to enforce a fine.<sup>18</sup> This was only partially effective, so on July 13 it was directed that the commons be "stinted" at the rate of forty head of neat cattle to one share. One horse was figured to equal two cows.

The next year the inhabitants were required to keep a still smaller number of animals on the common. A statement from the grazing committee indicated that "horses are like to be the ruin of the neat cattle, and the multitude of goats are very hurtful." Therefore, on June 29, 1669, an order was issued to clear the Island of horses by the end of November, and no one was allowed to sell a horse to any Indian dwelling on the Island. Forty sheep or goats were permitted per share. Even these orders were not too effective. On November 20, Nathaniel Barnard and John Coffin were directed to build a pound four rods square before the end of the next June, where stray animals could be held or livestock on the commons counted. Stephen Coffin was appointed to keep the pound "when once there is a key to it, and he is to have twopence a time for turning the key to lock or unlock the pound."<sup>19</sup>

These orders were issued by three "prudential men," who were chosen to be the executive officers of the community. Each free holder (shareholder and landowner) had to attend the town meeting or pay a fine. If he attended and talked too garrulously (without judgment), he also had to pay a fine. Certainly participation in the government was enforced, and each shareholder had to help decide every question that came up. Running a community founded on and conducted around grazing required the intelligent participation of each owner. In the Massachusetts Bay

and Plymouth colonies the object seemed to be to divide the land as rapidly as possible, in order to put it into private ownership. This was pretty well accomplished by 1700. On Nantucket, however, the "thousand hills and vales" were to remain in common and to require the individual participation of the shareholders in management. Grazing was intended as the permanent use of the area.

Apparently the original idea was not for an exclusive sheepman's community. As late as June 24, 1670, taxes were levied one-half on land and the other half on livestock, omitting consideration of sheep and goats. Whether this exemption was because the shareholders wished to encourage wool production, or whether sheep and goats were too scarce to be taxed is not recorded. But strong forces were evolving in the direction of sheep production.

In 1670 a penalty of ten pounds was assessed against anyone bringing a horse or colt onto the Island, and those who had been covertly raising hogs by letting them run on land owned by the Indians were given strict orders to desist from the practice. On July 9, 1671, goats were ordered to be brought to the pound to be counted and on August 3, 1672, it was voted that no more goats be permitted on the Island. Only sheep, milch cows, and oxen could then be grazed legally and the proportion of the latter two classes came gradually to be restricted.

The date that ear marks were first assigned to the sheep owners does not seem to be recorded, although such ear marks were registered with the town clerk almost from the first settlement. Apparently the practice came to Nan-

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<sup>18</sup> Worth, *Nantucket Lands and Landowners*, 94.

<sup>19</sup> *Ibid.*, 97.

tucket with the sheep. Ear marks were approved by a committee and put on under their supervision. In 1669 a law was passed that if any man altered the ear marks in a sheep (even though it were his own) without notice to the prudential men, he should be fined. In some cases severe penalties were assessed. About this time discussion arose as to whether there could be enough different ear marks to provide a sufficient variety for the sons and daughters who began sheep raising, too. Designs were few enough, but the sheepmen were assured that there were sufficient varieties of round and square holes, notches, crops, swallow-forks, splits, and clefts in the various positions possible, to provide plenty of marks for many generations to come. However, as a supplemental guarantee, each sheep owner was given a wool mark on March 9, 1672, in addition to his ear mark, and on August 2, 1680, it was ordered that any unmarked sheep should be killed or the finder might have it. Thus was "mavericking" made legitimate nearly two centuries before Samuel A. Maverick of Texas appeared on the scene.<sup>20</sup>

As time passed the number of sheep that each shareholder could graze on the commons varied. When goats were ordered off the Island, August 3, 1672, it was determined that each shareholder should be allowed twenty sheep. But this proved ultra-conservative and in September the allowance was increased to twenty-three sheep. By 1689, the number of cattle per share had declined, but horses were beginning to prove essential so more land was bought from the Indians and each whole share was allotted two horses, forty cows, or one hundred sheep.

Considerable effort was exerted to improve the flocks. On November 20, 1669, Thomas Coleman and John Rolfe were appointed to "view the sheep and

rams," and to require the owners "to dispose of such as are not fit to be kept." On August 3, 1672, those running sheep were instructed to mark their animals, especially their rams, before November 15. Irregularity in date of lambing and consequent disorganization in date of shearing, so as to produce the best staple and greatest yield, began to trouble the owners. On June 17, 1678, John Gardner, John Coffin, and Nathaniel Barnard, who had just been elected the "prudential men," were directed to superintend the grazing more closely and to see that all rams were carried off or brought on in season. Furthermore, stray rams were becoming a problem, and the entire commons were ordered fenced and the pound repaired, that better control over breeding might be exercised.

Sheep shearing was first regulated in 1676. At that time the little colony selected, as the date of shearing, the Monday nearest the twentieth of June. Extensive areas near ponds were fenced and were called "shear-pens." The sheep were driven into these inclosures from all parts of the island. Here they were "pond-washed" and identified by their owners. In early days the shareholders did most of the shearing, but as their finances improved, some of the settlers or their sons became shearing specialists and the price of shearing turned into a matter for public control. Shearing day resembled a modern fair, but lest the work of the day might be disturbed too greatly, it was provided that no tent or booth could be erected near the shearing pens—under a penalty of thirty shillings.<sup>21</sup> Two brooks furnished enough power for a weaving mill. In 1768 ar-

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<sup>20</sup> There was a Samuel Maverick who rented Noddles Island in Massachusetts Bay in 1633 for sheep raising, for "a fat hog, a fat wether, or forty shillings in money each year." See *Records of the Governor and Company of Massachusetts Bay in New England*, Vol. 1 (1853) :104; also Johnson, *Wonder Working Providence*, 37.

rangements were made for a clothier to establish a fulling mill.<sup>22</sup>

#### THE "SHEEP'S COMMON"

Perhaps the most unique development was the unit of inheritance, the "sheep's common." This was first mentioned in 1716 in a deed from Eleazar Folger.<sup>23</sup> The term ultimately came to denote a fractional part of the common land and originated in the right to pasture one sheep on the common for one season. The Proprietors estimated that one acre of this jointly-owned land would maintain one sheep. In 1816 the survey of land held in common showed 19,440 acres, and the Proprietors believed that the same number of sheep could be pastured if there were no horses or cattle on the common. A "sheep's common," when used in a legacy, therefore meant the right to pasture one sheep or use 1/19440th of the common land.

The value of this unit becomes obvious. There were originally twenty full share holders and fourteen half-share holders, a total of twenty-seven shares. If the holder of one full share bequeathed equal amounts to ten children, each would get 1/270th of the common rights, while a man with seven legatees would bequeath 1/189th, and one with four would bequeath 1/108th. Soon these fractions would have made the whole enterprise unmanageable, but the "sheep's common" provided a unit easily maintained. It came into general use some time before the Revolution and was continued for more than a century thereafter.<sup>24</sup>

#### SHEEP FEEDING AND BUTCHERING

The pioneer trader in mutton in the Colonies was John Pynchon, who with his father, William Pynchon, had been a member of the company settling Springfield, Massachusetts. As early as 1655 he was buying sheep for slaughter

in Rhode Island<sup>25</sup> and in 1656 at Sudbury, Massachusetts. Pynchon started out as a fur trader with the Indians, but branched into other lines and became the first commercial slaughterer and meat packer in the Colonies. Others followed in his footsteps and about 1700 a winter-feeding industry had been established. By 1690 and for the century thereafter, from six hundred to one thousand sheep were fattened each winter in Hadley, Massachusetts.<sup>26</sup> Though much care was required to maintain the industry, sheep were not particularly valuable during this period, selling for four to six shillings each when it took eight shillings to equal the dollar. By 1790 sheep sold for one penny per pound. Wool in Massachusetts brought eight-pence to one shilling per pound before 1790, and one shilling sixpence just before the Revolution. These prices applied at the farms along the Connecticut River.

#### COLONIAL WOOL PRODUCTION

From the first settlement, wool was produced primarily for home consumption and the demand for sheep was far more effective in increasing wool production than in improving mutton.

<sup>21</sup> Worth, *Nantucket Lands and Landowners*, 188.

<sup>22</sup> *Ibid.*, 191.

<sup>23</sup> *Ibid.*, 198.

<sup>24</sup> In 1845 some owners of "sheep's commons" pastured no sheep while others did not handle as many as their "sheep's commons" permitted. Still others maintained more than their rights. The Proprietors therefore decided to enforce the law and the five field drivers for sheep were ordered to impound all present illegally. At one time two thousand head were in the pound and many of the best lawyers in Massachusetts and New York were retained to settle the question. Sometimes the individual owners won, and sometimes the field drivers representing the Proprietors were successful. But the suits dragged on for several years, and by the time everything was straightened out Nantucket could no longer compete profitably with northern New England and the West.

<sup>25</sup> Judd, *History of Hadley*, 372.

<sup>26</sup> *Ibid.*

Every effort was made by the English authorities to preserve the colonial market for their own spinners and weavers, although their attempts were not effective. Woolens were the product of household industry on this side of the Atlantic. British laws to restrict production of woolen goods were almost unenforceable. Furthermore the authorities in each colony were anxious that the clothing for at least every-day wear should be home-produced, and they made a variety of efforts to stimulate sheep raising. In 1666, Connecticut also exempted sheep from taxation and gave them exclusive rights on part of the pasture land. All male citizens more than thirteen years old were required to work one day annually to increase the lands suitable for sheep, by clearing away underbrush so that pasture grasses could grow with less competition.<sup>27</sup>

In the Massachusetts Colony sheep had multiplied so rapidly that market prices sagged. The quality of animals assessed in 1645 at forty shillings (\$10) was assessed in 1662 at only ten shillings, and in 1673 at only five shillings.<sup>28</sup> Despite the drop in market values, the authorities were so anxious to keep up the wool population that they lowered taxes on sheep along with the market, so as to preserve adequate supplies in the colonies. Hence, during the century just preceding the American Revolution sheep numbers continued to expand—paralleling the human population, as there was virtually no market outside the immediate family. As late as 1796 a survey by the Massachusetts Society for Promoting Agriculture<sup>29</sup> reported only ten to twenty sheep on each farm, just the number needed to supply family requirements.

The first attempt to improve the industry beyond the family hearth came from the establishment of fulling mills.

"Fulling" comprised a treatment of the fleece with fuller's earth (an impure hydrous aluminum silicate), which not only bleached the fleece slightly and removed the natural grease, but also shrank and thickened the fiber. Rowley, Massachusetts, near Ipswich, had a fulling mill in 1643—its early settlers having been immigrants from Yorkshire who had some skill in weaving.<sup>30</sup> By 1700 most of the towns from the Pennsylvania Colony northward had fulling mills,<sup>31</sup> while several settlements such as Chelmsford, Massachusetts, in 1655, had made appropriate grants of land to encourage weavers to settle.<sup>32</sup>

The second step was the building of power carding mills. Carding was the process of drawing out the woolen fibers so they could be spun into yarn, and hours of monotonous hand labor were required to bring the complete fleece into shape for spinning. But spinning and weaving were carried on in the home for more than a century and a half after these first mills were established in New England, despite the fact that most of the work was done at stipulated rates for the grower, and could be paid for in wool in the absence of cash.

#### PROBLEMS PRECEDING THE REVOLUTION

The attempts by the English to retain control of the woolen trade in the colonies created a growing friction. Many families that had used imported British

<sup>27</sup> *Public Records of the Colony of Connecticut, 1636-1776*, Vol. 2 (1852) :34, 51-52; Vol. 3 (1859) : 91; Vol. 4 (1868) :345.

<sup>28</sup> *Ibid.*, 35.

<sup>29</sup> *Ibid.*, 52. Quotations from *Massachusetts Society for Promoting Agriculture*.

<sup>30</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 32.

<sup>31</sup> Ernest L. Bogart, *Economic History of the United States*, 53, 58-60.

<sup>32</sup> James L. Bishop, *A History of American Manufactures from 1608 to 1860*, 3d. ed., Vol. 1: 312.

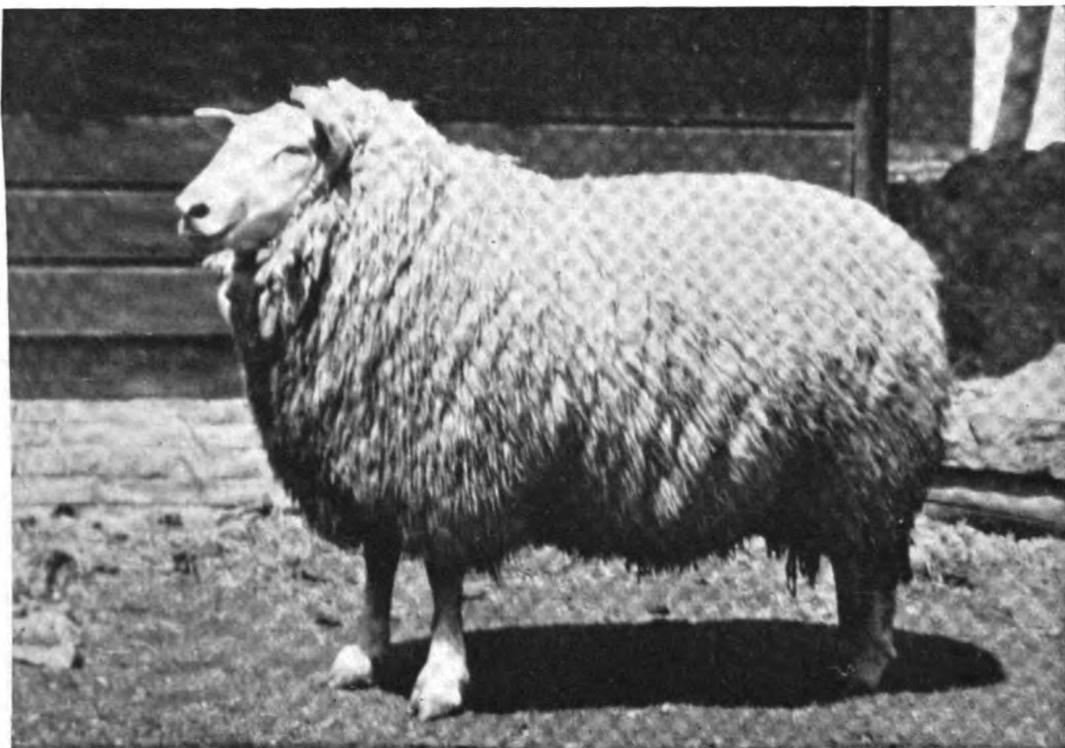


FIG. 19a—Texel ram in full fleece. This is the breed brought to New Amsterdam by Dutch settlers (p. 38).

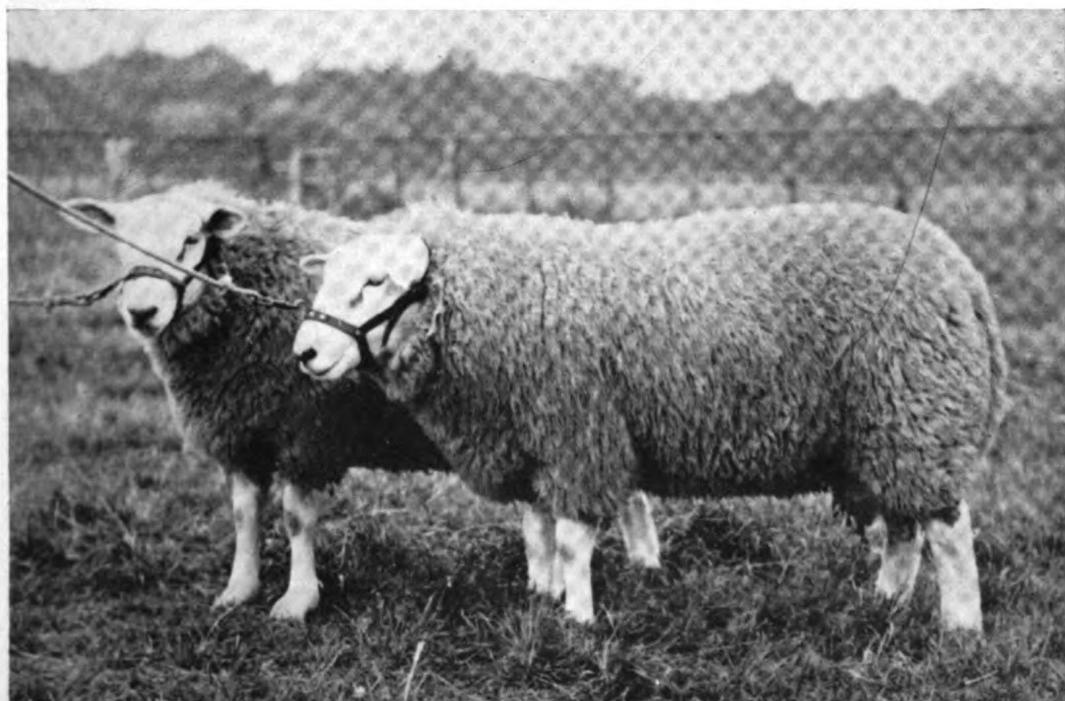


FIG. 19b—Pair of Texel rams in field condition. (Photos from Vereeniging tot Verbetering van de Schapenfokkerik, Netherlands.)

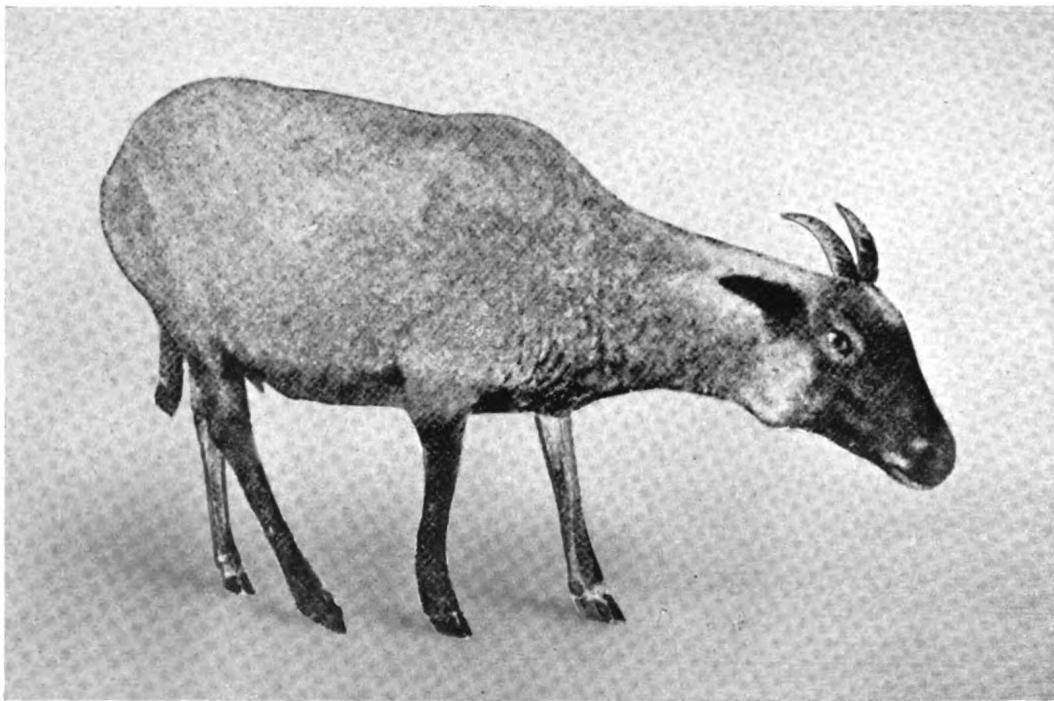


FIG. 20—Bündner (or peat-sheep) ewe, remains of which type were discovered in Swiss lake-dwellings. This probably was descended from the wild Mouflon and related to primitive breeds on islands off the coasts of Europe (p. 7).

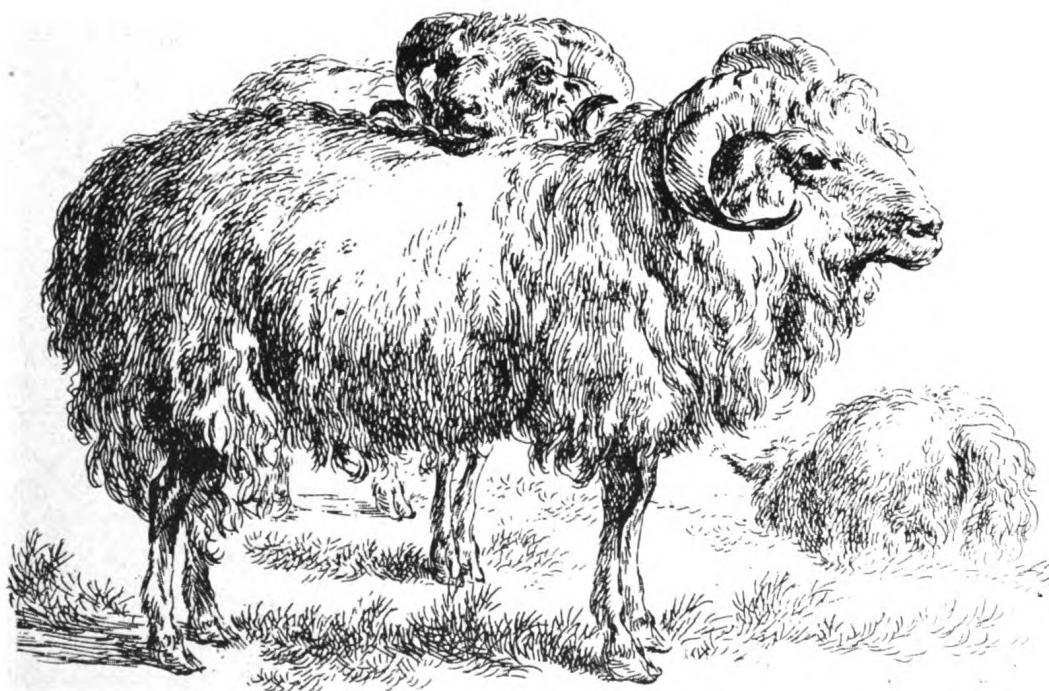


FIG. 21—North European type of white-faced ram, etched by Nicolas Berchem (Dutch artist) about 1650 (p. 8).

woolens came to believe such purchases were unpatriotic, and started wearing the coarser homespuns. Even before the end of the French and Indian War, a few merchants had ceased to import any woolens except the English broadcloths.

The trade conflict, as far as sheep and wool were concerned, had begun long before this, in the time of Queen Elizabeth. Sheep were then valued so highly that stringent laws were passed to prevent their exportation from England. Anyone convicted of sending sheep out of the country was, for the first offense, condemned "to forfeit his goods forever, to suffer a year's imprisonment," and then to have his left hand cut off in a market town on a market day, there to be nailed to a pillar. For a repetition of the offense it was ordered that he should be adjudged a felon and suffer death. Parallel restrictions were placed on the market of wool. Nearly a century later the "corn laws" of 1691 closed English ports, either absolutely or under heavy duty, to Colonial cereals and meats. Then in 1699 the British Parliament enacted a law that no woollen manufactures should be exported from the colonies, transported from one colony to another, or carried for sale purposes from one place to another within the same colony. Every effort was made to create a monopoly in the Western Hemisphere for British spinners and weavers.

Despite the rigor of the British treatment, the trade through London brokers with the West Indies and with the continental nations of Europe helped the colonies to prosper, especially during the war with France that ended in 1763. The parliamentary restrictions on the general commerce of the Colonies following that date were another matter, however, and so disorganized the colonial merchants that they began to

adopt a policy of non-importation from England. A strong patriotic fervor developed on this subject and for more than a decade coursed through the colonies. Regardless of the merits of the British viewpoint—and it was necessary to raise revenue in the British Colonies after the long French war, as well as to put down the widespread smuggling in the Colonies—the indirect result was an expansion of the sheep industry.

#### BOYCOTTING BRITAIN

In August, 1764, fifty Boston merchants agreed to import no English cloths except at a fixed price, and merchants of the other ports soon followed suit. In the northern colonies the opposition was especially strong, and imports fluctuated greatly at Boston, New York, and Philadelphia throughout the next decade. In the southern colonies the volume did not change so much, as there were fewer manufacturers and merchants and it was essential to exchange the southern farm products in order to obtain the other necessities of life.

However, the general feeling against English importations began to reach a crisis around 1773 and some of the colonial merchants, foreseeing shortages, expanded their importations from Great Britain. The first Continental Congress was called in 1774. During the summer its trend of discussion toward a boycott of British products stimulated the colonial merchants to larger and larger orders in Britain. This activity became so strong in London that the woollen trade commented on it freely, reporting double and treble the usual size of woollen orders.<sup>33</sup> The colonial governors also made numerous comments on their local sit-

<sup>33</sup> Arthur M. Schlesinger, *The Colonial Merchants and the American Revolution*, 473-74.

uations in reports to London, especially as they observed the firmness of the trend toward non-importation of British products within the Congress. Unfortunately, the imminence of war was not appreciated, and woolen goods of a type suitable for military purposes apparently were not ordered.

In Great Britain the situation was better understood. During the same year (1774) the British Parliament passed a law preventing the exportation of "any machine, engine, tool press, paper, utensil, or implement, or any part thereof, which now is, or hereafter may be, used in the woolen, cotton, linen or silk manufacture of this kingdom, or goods wherein wool, cotton, linen or silk are used, or any model or plan thereof." Tremendous penalties, with imprisonment for twelve months, were provided. Retaliation came in November, 1774, when the importation of products from Great Britain into the colonies was forbidden by the Continental Congress, the effective date to be December 1, although a period of two months thereafter was allowed to receive goods already in transit.

The text of the articles of the Continental Association dealing with sheep and wool was as follows:

**ARTICLE vii.** We will use our utmost endeavors to improve the breed of sheep and increase their number to the greatest extent; and to that end, we will kill them as seldom as need be, especially those of the most profitable kind; nor will we export any to the West Indies or elsewhere; and those of us who are, or may become, overstocked with, or can conveniently spare any sheep, will dispose of them to our neighbors, especially to the poorer sort, on moderate terms.

**ARTICLE viii.** We will, in our several stations, encourage frugality, economy and industry, and promote agriculture, arts, and the manufactures of this country, especially wool . . .

#### THE EXPORTATION PROBLEM

Action developed instantly to conform with the provisions of Article vii, in

order to increase sheep numbers. There was no reason for preventing exportations to the West Indies except that an agreement forbidding one class of merchants to export to England created a discrimination against them as compared to those trading elsewhere. Hence it was decided that no privileges should be given to exporters to any country.

The provisions affecting sheep were the only non-export regulations that had to be enforced frequently, and violators were subjected to a new penalty from a governmental standpoint—infamy. Deviations from the regulations were defined to constitute treason and it was provided that the transgressor "shall be declared in the publick papers to be an enemy of his country."<sup>34</sup> In Rhode Island in November, 1774, a committee of Providence purchased one hundred thirty-six sheep intended for export to the West Indies, and sent them as a gift to Boston, which was then blockaded by the British fleet.<sup>35</sup>

About the same time the "Committee of Forty-Five" in Portsmouth, New Hampshire, forced a Captain Chivers to stop the exportation of fifty sheep loaded on his vessel for the West Indies and required their resale—at some loss to the Captain.<sup>36</sup> In December a Captain Hamilton at Salem, Massachusetts, had planned to send thirty sheep to Jamaica, but he quickly abandoned his plans when a committee of inspection explained that he would be violating the agreement. Shortly afterward the Salem Committee stopped the exportation of another consignment.<sup>37</sup> The Newport

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<sup>34</sup> "Political Observations Without Order," *Pennsylvania Packet*, Philadelphia, Pa., (November 14, 1774).

<sup>35</sup> Schlesinger, *The Colonial Merchants and the American Revolution*, 485.

<sup>36</sup> *Ibid.*, 483.

<sup>37</sup> *Ibid.*, 481.

Committee even refused the shipment of sheep to other provinces until the Salem Committee pointed out, in February, 1775, the error in interpretation.<sup>38</sup>

The first occasion to apply the rules of the Association in New York was also in connection with a person who attempted to ship sheep to the West Indies. A group of citizens acted on this case without waiting for the "Committee of Fifty-One."<sup>39</sup> Upstate the Morris County Committee supplemented the provisions of the Association with the restrictions that no sheep could be taken from the county without the Committee's approval.

In the plantation provinces the non-export problem became crucial. If tobacco, cotton, wool, bacon, and hams could not be exported the planter had no source of income from which to meet his obligations. Exports to England from Maryland, Virginia, and the Carolinas fell from over four and one-half million dollars, in 1774, to just over forty thousand dollars in 1775—a drop of more than 99 per cent as compared to slightly less than 97 per cent for the colonies as a whole.

#### NON-SLAUGHTER ACTIVITIES

The regulations against importation increased the responsibility of colonial wool producers. To aid the supply, the Articles of Association recommended that sheep be killed "as seldom as need be." Such a policy had been in partial effect previous to the meeting of the Continental Congress and in many sections had resulted in a rapid increase in the price of mutton. Early in 1765, fifty-five fire companies in Philadelphia agreed to refrain from purchasing lamb. Later in the year the citizens of Philadelphia, New York, and Boston signed resolutions not to purchase or eat lamb or mutton and to boycott all butchers

who violated or sought to counteract these resolutions. Other colonies gradually adopted the same policy. On May 18, 1769, the House of Burgesses of Virginia passed a resolution definitely to halt the killing of lambs. In North Carolina on November 7, 1769, similar resolutions were adopted by the Assembly, the day after it had been officially dissolved by Governor Tryon.

This preliminary experience made it easier when the Continental Congress adopted the Articles of Association. Around Boston people were asked to refrain from killing sheep except in case of direst necessity. At Philadelphia the "Committee of Sixty-Six" recommended that no ewe-mutton be purchased or eaten in the country until May 1, 1775, and after October first its use would be entirely forbidden. Notices were published in both German and English to warn farmers against selling sheep to butchers in violation of the regulation. Sixty-six butchers in Philadelphia and all of the butchers in Reading agreed to this policy.<sup>40</sup> In January it was unanimously decided that after the first of March no sheep under four years of age would be killed or sold, except from extreme need. In Maryland it was also sought to supplement the Articles of Association by preventing the killing of any sheep under four years of age.<sup>41</sup>

These terms were more severe than those laid down by the Congress. Considerable confusion was caused by objectors who claimed to support the Association, even though they did not submit to the Maryland convention. Consequently the prohibition was withdrawn in August, 1775, after having been in

<sup>38</sup> Schlesinger, *The Colonial Merchants and the American Revolution*, 486.

<sup>39</sup> *Ibid.*, 489.

<sup>40</sup> *Ibid.*, 501.

<sup>41</sup> *Ibid.*, 508.

effect about eight months. In the New York Colony, the Morris County Committee rigidly enforced a rule to prevent slaughter of sheep four years old or younger throughout the entire period of the war.<sup>42</sup> Virginia voted on May 1, 1775, that no sheep under four years of age should be killed except in case of extreme necessity.<sup>43</sup> South Carolina agreed to kill no sheep for sale after March 1, 1775, but it did not prevent the slaughter for use on the home plantation.

#### PROMOTIONAL WAR MEASURES

In general the non-importation of woolens had little effect on the average man, but it deprived the wealthier classes of their broadcloths and other accustomed luxuries. The great problem was to stimulate domestic production. In Connecticut immediate encouragement was given to sheep raising and wool manufactures. In Philadelphia the Union Company for Promoting American Manufactures was established. The efforts of the Company were largely directed toward the manufacture of woolen, cotton, and linen textiles.

Promotional efforts were especially strong in the plantation provinces. In January, 1775, the Northampton County Committee in Virginia offered a bonus of forty pounds sterling to the first person who would make one thousand pairs of wool-cards within the next eighteen months. The committee agreed to pay two shillings a pair for them. North Carolina went a step further than Virginia, by offering premiums for particular manufactures. Chowan County, in March, 1775, offered prizes to the first persons in the entire province who should make a definite number of woolen and cotton cards, and furthermore guaranteed a better price than the same articles from England commanded. Other

awards were announced for the making of fulled woolen cloths.

The Provincial Congress of North Carolina recommended that other counties follow the same procedure and, when they proved apathetic, offered twenty premiums totalling 2,965 pounds sterling in value. These premiums were for wool and cotton cards, linen and woolen fabrics, iron and steel products, and various military explosives. The inhabitants of South Carolina were asked by the Provincial Convention to give preference to the manufactures of their own people. Storekeepers at Charleston, Georgetown, and Beaufort were urged to buy all wool offered at stated rates, and to sell the wool to the weavers at cost. South Carolina failed to execute as many detailed regulations as Virginia and North Carolina, largely because Georgia did not participate in the Association and the staples of these two contiguous provinces were much the same.

The confusion and friction, which would have proved unendurable if the Association had been forced to continue over a long period of time, ended when the war actually began. Not all of the problems disappeared, but the jealousies over seeming privileges were lost in the efforts for the common defense. The peaceful methods of the boycott and commercial coercion became subordinated to the military necessities. In March, 1776, the Continental Congress urged the establishment in each province of a society for the improvement of agriculture, arts, manufacture, and commerce.<sup>44</sup> While in many respects these

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<sup>42</sup> Schlesinger, *The Colonial Merchants and the American Revolution*, 495.

<sup>43</sup> *Ibid.*, 518.

societies were not too effective, their active promotion of measures favorable to the sheep and wool industry resulted in a far smaller decrease in the sheep population in some sections of the country than might have been expected during the prosecution of a war. In Georgia, the Carolinas, western Virginia, Maryland, and upper New York there were actually increases in the number of sheep on farms. Only in the more active combat areas of Massachusetts, Connecticut, Long Island, New York, New Jersey, and Pennsylvania were drafts on the flocks important.

The ardor for a colonial wool trade did not stimulate commercial woolen production rapidly enough, however. When the Revolution began, the demands of the Colonial troops soon swamped the young industry. The clothing shortage during the severe winter at Valley Forge was one of the results. As the war progressed, large quantities of woolens (much of English manufacture) were procured through France. But even these did not satisfy the full requirements, and sheep production continued to increase in several of the Colonies throughout the war.

#### POST-REVOLUTIONARY CONDITIONS

Feverish efforts developed immediately after the war to establish a strong woolen industry. Improved machinery for spinning and weaving had been invented in England during that period and American manufacturers made strenuous efforts to import them. British manufacturers objected, however, and the Parliament re-enacted in 1781 its war measure of 1774 which severely penalized the exportation of machines, tools, models, and plans of such machinery. This action stimulated Americans into manufacturing excellent wool or stock cards, as well as spinners' cards. By

1786 the English manufacturers were feeling the pinch in their American trade. Hence export restrictions were lightened, and America was flooded with English and West Indian goods until available cash and exchange were pretty well exhausted. Times became more and more difficult for the wool growers, and many of those owning small flocks joined the westward tide of migration that set in after the war.

The lack of international exchange limited purchases in other fields, and the general indebtedness made buyers unwilling even to attempt to buy such good quality English goods as were available. But the mounting volume of the southern cotton crops and the increasing flocks of the Middle Atlantic States and New England created a marketing problem for fabric manufacturers that Yankee ingenuity set about solving. Artisans' tools and all machinery were admitted to the country free of duty and members of the various skilled trades were granted immediate citizenship, providing they declared their intention of pursuing their particular calling. Manufacturing expense was high in comparison with England. The idea of tariff protection for our "infant industries" practically originated in the post-Revolution business of spinning and weaving.

The public support given these ideas was absolutely essential in creating the necessary markets. Including home manufacturing, three-fourths of the garments used in Virginia were made from the product of Virginia farms in 1785, as compared to one-eighth ten years earlier.<sup>45</sup> In New England, Providence became a great woolen center, and in 1790 manufactured thirty thousand

<sup>44</sup> *Journals of the Continental Congress—1774-1789*, L.C. edition, Vol. 4:224.

<sup>45</sup> Bogart, *Economic History of the United States*, 49-50.

yards of woolen cloth. Imports to Massachusetts were cut in half in 1790 as compared to 1770, while Connecticut *exported* a definite surplus. New Hampshire, New Jersey, and Pennsylvania established large numbers of fulling mills, which testified to the activity of the home weaving industry. New York, Delaware, and Maryland developed both fulling and weaving mills. However, only four commercial mills worthy of the name were operating before 1800.<sup>46</sup> In the back country, outside of the seacoast towns, everybody wore homespun.

The success of these enterprises was evident just before the end of the century. In 1790, 1792, 1799, and 1800 all of the wool produced was manufactured in the United States, and during several of the years in this decade European wools had to be imported to meet the manufacturing requirements. The South especially became a strong market, satisfying its family needs less and less from British fabrics. Hamilton<sup>47</sup> estimates that in 1790 two-thirds to four-fifths of the clothing worn was manufactured in the household industries.

Prosperity among the sheep raisers was notably lacking from 1793 to the end of the century, however. When war again began between England and France in this year, foreign restrictions which had denied American agriculture access to Europe were removed. All along the seaboard prices advanced for agricultural products, except those of sheep.<sup>48</sup> Farmers who could easily reach waterways therefore neglected sheep raising for more profitable products, and the trade in sheep declined. The depression was "spotty." It was felt primarily in districts too far from the wool markets to permit freighting bulky woolen bales. Mutton was altogether too perishable to hazard against the low price levels.

The feeling against colonial manu-

factures of woolens, which had been prevalent in England before the war, was fed by direct British propaganda after the Revolution. A tendency to depreciate the quality of American manufactures continued after peace was signed and a few wealthy Americans apologized when found wearing domestic products. The British tradesmen not only "knocked" the American fabrics, but the British government forbade the sale of English sheep to America under a penalty of forfeiture of the vessel conveying them as well as the sheep themselves, and a fine of three pounds sterling per head. In addition, for the first offense, three months solitary confinement was provided as a penalty for each person implicated—with heavier punishment for repetition. A few sheep were smuggled out, but as might be expected their effect on American flocks was negligible.

#### MOUNT VERNON

Exception to the rule of low-quality flocks was that of General George Washington at Mount Vernon, Virginia. Washington had learned of the work of Robert Bakewell in England in improving the old Leicestershire sheep, and had kept abreast of its advancing agriculture through correspondence with the best known authority on all forms of British husbandry, Arthur Young. Immediately upon the signing of peace in 1783 Washington returned to Mount Vernon to rebuild the flocks and herds which had been seriously neglected during his absence. Between that date and 1789, when he took oath as the first president of the United States, he had

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<sup>46</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 117.

<sup>47</sup> *Special Report*, U. S. Treasury Department (1887), 48.

<sup>48</sup> Bogart, *Economic History of the United States*, quotes Hamilton, 154-55.

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rebuilt his flock to approximately eight hundred head and had carefully improved the quality of wool.

In writing Arthur Young on December 4, 1788, he reported that a wool manufacturer from Leeds had estimated his wool to be "about the same quality with the English wool in general, though there is always a great difference in the fineness of the different parts of the same fleece," (compare page 55). The next year some Mount Vernon wool sent to England was pronounced by an English manufacturer to equal in quality the wool from Kentshire (medium coarse). The same year his fleeces averaged  $5\frac{1}{4}$  pounds per head. He conducted investigations among northern woolen manufacturers in 1789 to determine the qualities of wools from the various regions, and learned that the Virginia wool was the finest of all the states. His authority for this statement was Colonel Jeremiah Wadsworth, of Hartford, Connecticut, who made the broadcloth from domestic wools which Washington wore when he read his presidential address to Congress in January, 1790.<sup>49</sup>

Writing Arthur Young from Philadelphia, June 18, 1792, Washington called attention to the fact that the celebrated Bakewell breed of sheep could not be entrusted to an American overseer without degenerating "for want of that care and attention which is necessary to preserve the breed in its purity." Despite the fact that he required weekly reports from his overseer, he learned in 1794 that his lamb crop was only a third that of the previous year, a fact which disappointed him bitterly. On his return to private life in 1797 he found his flock had dwindled from eight hundred to two hundred head during his two terms of office. The average fleece weight had dropped from  $5\frac{1}{4}$  pounds to  $2\frac{1}{2}$  pounds.<sup>50</sup> He immediately began its improvement, and started the Arlington

Long-Wooled breed, the first strictly American strain of livestock to receive recognition.

George Washington stimulated his Secretary of State, Thomas Jefferson, into entering the sheep business, and stirred the interest of the whole countryside from Philadelphia to Richmond. Numerous gentlemen around Philadelphia and Baltimore took up the torch of sheep improvement, and though the financial depression of the mid-nineties hampered them, and though they recovered only to be swamped by the Merino wave beginning in 1807, the foundation for a growing and improving sheep industry had been laid.

#### POSTWAR MIGRATIONS WESTWARD

Between 1785 and 1800 the westward trek to the Ohio River Valley got under way and the new settlers required some sheep with them to produce underwear, hosiery, mittens, and suitings, even though furs and buckskins provided the workaday costumes. Hence the sheep population gradually spread away from the seaboard. By 1800 it was well established in western Pennsylvania, in the four counties that now constitute the northward extending panhandle of West Virginia, and in the bluegrass section of Kentucky, around Lexington, Frankfort, and Harrodsburg. Sheep movement into Kentucky was down the Ohio River. In 1788 emigrants took 140 sheep, 2,872 cattle, and other livestock into those settlements. The quality of these sheep was not very high, and few growers paid any attention whatsoever to the problem of improvement.

There were three chief trails used in reaching the New West—all leading across the mountains from points accessible to the seaboard and converging in

<sup>49</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 54-55, 118.

<sup>50</sup> *Ibid.*, 57.

the Ohio River Valley.<sup>51</sup> The best known followed for most of the distance the route pioneered for troops by General Washington. Its western end came down the Youghiogeny and Monongahela rivers, but it was reached from Baltimore and the Virginia settlements via the Potomac, and from Philadelphia and New Jersey via Harrisburg and Bedford. The Potomac branch was used by General Braddock in his unsuccessful attack on Fort Duquesne. The Bedford branch was used by General Forbes when he conquered Duquesne and changed its name to Fort Pitt. By the close of the Revolution daily travel was taking place over most of the routes, and the sight of sheep and other livestock along the trail was a commonplace event.

In 1780 General Washington recommended to the Continental Congress that a road be constructed from Cumberland to Pittsburg, but it was 1802 before construction actually started. Eastern connections with the route were commenced much earlier, and in 1790 the Philadelphia-Lancaster turnpike was constructed. Instead of soft dirt, crushed rock was spread over the graded roadway and rolled into place by the wheels of the horse-drawn vehicles. A connection with New York was provided by the Old York Pike, while a connection with Cumberland was later furnished through Harrisburg, Carlisle, and Bedford. These early pikes were privately owned and toll was paid for each class of traffic, at convenient toll houses where entrance to, or exit from, the pike was desirable. Pennsylvania's central location made her furnish passage to the majority of westward-moving flocks.

Equally historic with the trails via Cumberland and Bedford was the path up the Mohawk Valley in New York to Lake Erie, and thence southward to the Ohio. While it did not draw as num-

erous flocks previous to 1800, the route later contributed to the westward movement of Merinos and played an important part in the eventual sheep settlement of the Western Reserve, southern Michigan, and southern Wisconsin.

A fourth and more southern route was opened by the successive activities of Dr. Thomas Walker and Christopher Gist in the spring and fall of 1750, as each progressed down the Cumberland River looking for suitable places for settlement. It was 1769, however, before this trail came into common use. At that date, Daniel Boone was engaged by Judge Richard Henderson to open up the "Wilderness Road" and to escort settlers to the new colony of Transylvania (now part of Kentucky). From Virginia this led up the Shenandoah Valley and crossed over to Cumberland Gap. Relatively few sheep used this passage, and they were of the spare-framed, open-wooled Virginia type. Before 1800, however, large numbers of cattle and hogs were traveling over it.

A fifth route led around the south end of the Appalachian chain, and into Tennessee. It is doubtful whether any sheep moved over this trail before 1800, although some followed it shortly thereafter.

#### NEW AREAS OF SHEEP PRODUCTION

As the settlement beyond the Alleghenies proceeded, the region in western Pennsylvania now comprising Washington, Greene, Fayette, and Somerset counties, and in the West Virginia panhandle now including Hancock, Brooke, Ohio, and Marshall counties on the east bank of the Ohio River, developed a dominant sheep culture. Flocks from New England, New York, and Virginia all entered

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<sup>51</sup> E. R. Johnson, J. W. Van Metre, G. G. Huebner, and O. S. Hanchett, *History of the Domestic and Foreign Commerce of the United States*, Vol. 1:204.

Our domestic animals, as well as our agriculture, are inferior to you, in point of size; but this does not proceed from any defect in the stamina of them but from deficient care in providing for their support; experience having abundantly evinced that, where our pasture areas as well improved as the soil & climate will admit; - where a competent store of wholesome provender is laid up - and proper care used in serving it, that our horses, black cattle, sheep &c are not inferior to the best of their respective kinds which have been imported from England. - Nor is the wool of our sheep inferior to that of the common sort with you: - as a proof - after the Peace of Paris in 1783, and my return to the occupations of a farmer, I paid particular attention to my breed of sheep (of which I usually kept about seven or eight hundred). - By this attention, at the shearing of 1789 the fleeces yielded me the average quantity of  $5\frac{1}{4}$  lbs of wool, - a fleece of which promiscuously taken, I sent to Mr. Arthur Young, who put it, for examination, into the hands of manufacturers. - These pronounced it to be equal in quality to the best English wool. -

FIG. 22—Portion of a letter from George Washington to Sir John Sinclair.

this section—a hardy, long-legged, and coarse-wooled mixture of breeds, "with the speed and endurance of a fox hound."<sup>52</sup> They furnished a wool suitable for home industry, but too poor to compete with the product of mills east of the mountains.

The region was ideal for sheep production. Its agricultural qualities had been noted by George Washington when conducting his first survey for the Virginia colony in 1753. Part of his reward had been grants of land in this general vicinity. The terrain is highly diversified, with deep valleys, year-round streams, smooth hill slopes, luxuriant grass, and lofty tablelands or broadly rounded crests at the summits. "In the warm months of the year, it furnishes a high and dry range for flocks and, at the same time, sheltered valleys and nooks where protection is offered from storms and winds."<sup>53</sup> The early settlers used little or no artificial shelter throughout the year, and sheep were regularly fed in the open fields.

Elsewhere as the century ended there were other centers of breeding. Enough long-wooled sheep of Leicester type had reached the Kentucky settlements to supply some homespuns for the citizens of Frankfort, Lexington, and Harrodsburg. Along the west side of the Ohio River, both near Marietta and Steubenville, were small flocks that had been introduced from New Jersey and Connecticut. At Steubenville agitation was also beginning for a woollen mill. These scattering settlements, which ultimately became centers of distribution, marked the western edge of the American sheep walks for the English-speaking races.

#### FRENCH SETTLEMENTS

At the same time that the Kentucky settlements were being developed, the French were pushing settlements in Indiana, Illinois, and Missouri along

the Wabash, Mississippi, and Missouri rivers. These little settlements had no connection originally with the colony at New Orleans, but were populated from Canada. On the Wabash was Vincennes, and on the east side of the Mississippi were Kaskaskia, Cahokia, and Prairie du Roche. These had little to do with the development of the sheep industry, but the west bank developed five towns, all of which contributed to the growing husbandry of the Mississippi Valley.

Coming up the River, and thence up the Missouri, were Ste. Genevieve (Miséré), Carondelet (Vuide Poché), St. Louis (Pain Court), St. Ferdinand (Florissante), and St. Charles (Petit Côte). Sheep and hogs were in this district in 1750, according to Father Vivier<sup>54</sup> but woolens were so high priced that they had little appeal to men who could obtain furs and skins by hunting and trapping. The forests supplied the principal parts of their costumes. Out of deerskin were made pants, coats, vests and moccasins.

In reporting on the Spanish Illinois country to Governor O'Reilly at New Orleans, Don Pedro Piernas on October 31, 1769, stated that Ste. Genevieve had "extensive fields and meadows suitable for all kinds of crops," but the chief crop was "wheat, which is yielded abundantly. There are some who are wealthy enough to cultivate their lands and raise cattle, hogs, and horses, and have a considerable number of slaves."<sup>55</sup> Yet during the period of Spanish control preceding Napoleon, sheep and cattle were very scarce. In 1778, additional fowls and pigs were authorized for intro-

<sup>52</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 484.

<sup>53</sup> *Ibid.*, 483-84.

<sup>54</sup> Louis Houck, *The Spanish Regime in Missouri*, Vol. 2:237.

<sup>55</sup> *Ibid.*, Vol. 1:70.

duction by Lieutenant Governor Bernardo de Galvez from his headquarters in New Orleans. The Commandant at St. Louis was required to report expenditures for these animals every six months.<sup>56</sup> In spite of these efforts, a Spanish census of upper Louisiana in 1800 made by de Lassus lists no livestock whatsoever.<sup>57</sup>

Bradbury reported, just after the century closed, the presence of an abundance of horses, cattle, and hogs, which ran at large on the prairies.<sup>58</sup> The number of sheep was smaller, and St. Louis and Carondelet each had but one or two flocks. As in the British colonies, spinning and weaving were home industries. Feed was provided for livestock during the snowy season by mowing grass on the prairie and making it into hay for the sheep, cattle, and horses, but the hogs had to shift for themselves at all times. All livestock was ear marked, and the marks were registered in each township. Slits and holes were used in various combinations to provide the marks, and no carcasses of sheep, cattle, or swine could be sold unless the ears accompanied the meat.

Marking livestock that normally ran at liberty was no easy job. Ewes with lambs, cows with calves, and sows with litters were particularly wary, and all

had to be tricked into the settlements. For swine it was necessary to find the herd and throw down ears of corn (one at a time) until the grunting, squealing mass of pigs with their mothers could be tempted into a proper inclosure. Maize had no such appeal to sheep, cattle, and horses, however, and the owner had to attract them by scattering salt lightly so that the dams and offspring gradually were caught in the corrals or pens.

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As the century closed the great pressure that led to the first "westward migration" in the United States already had disclosed routes across the mountains. Sheep were dammed up along the Ohio River and had reached the settlements in Kentucky and along the Mississippi. The setting was complete for the great lines of emigrant wagons, the flocks of sheep, and the herds of cattle and swine that crowded the turnpikes and trailways of the next half century.

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<sup>56</sup> Houck, *The Spanish Regime in Missouri*, Vol. 1:157.

<sup>57</sup> *Ibid.*, Vol. 2:414.

<sup>58</sup> Bradbury, *Travels in the Interior of America, 1809-1811*, 60.

*Indeed this Nation above Others  
Had that Advantage and Blessing  
To produce numerous Flocks of Sheep,  
Whose very Wool, not to mention the rest,  
Hath made it Famous in all Countries with which it Trades,  
Having brought in a Great Store of Riches  
To the Encouragement of Graziers and Farmers.*

—Josiah Richardson, “The New  
England Farrier and Family Physician”

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## Crossing the Alleghenies, 1800-1860

THE Nineteenth Century dawned on a young republic, tingling with youth and vibrant with energy. The Alleghenies had been crossed by thousands of settlers seeking western Pennsylvania and the Ohio Valley, and the prairie beyond promised wealth and limitless opportunity to anyone meeting its challenge. In the vanguard of the movement traveled the flocks of sheep, vital to families abandoning the comforts which a century and three-quarters had developed along the Atlantic Seaboard, and once more becoming emigrants and frontiersmen. The commercial spindles and looms just acquired in New England and the North Atlantic States meant little to people headed for the prairie—persons whose households would depend on spinning wheels and homespuns throughout the next few decades.

The year 1801 saw flocks of sheep permanently established on the east bank of the Ohio River. On the west side, upstream from Marietta, was Steubenville, the first trans-Ohio settlement to erect woolen mills. Well known routes already were operating to Lake Erie, Zanesville, and Fort Wayne, while a cross-country trail existed to Vincennes. Over the Ohio hills, from Wheeling through modern Barnesville and Cam-

bridge, the trail known as Zane's Trace was continually astir with the hoofs of westbound sheep and cattle. Hundreds of boats were drifting down the Ohio River to the settlements in Kentucky, or to the Scioto and Miami Valleys. In fact, the principal pressure of migration paralleled or followed the Ohio. From Marietta (founded in 1788) the settlers could move up the Muskingum to Zanesville and northward. At Portsmouth, farther down the river, they could turn up the Scioto Valley. Still farther, beyond the site of Cincinnati, they could head up the Great Miami. The first bargeloads of wool left Portsmouth for St. Louis and New Orleans in 1802.

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The traffic that streamed across the Alleghenies during the early decades of the nineteenth century was one of the great colonizing movements of all time, both in volume of emigration and in economic and political importance. Two generations ago, Rideing wrote of the Old National Turnpike:

No other post roads in the country did the same business as this fine old highway . . . Wagons were so numerous that the leaders of one team had their noses in the box at the end of the next wagon. Besides the coaches and wagons . . . there were enormous droves of sheep and herds of cattle which raised dust like

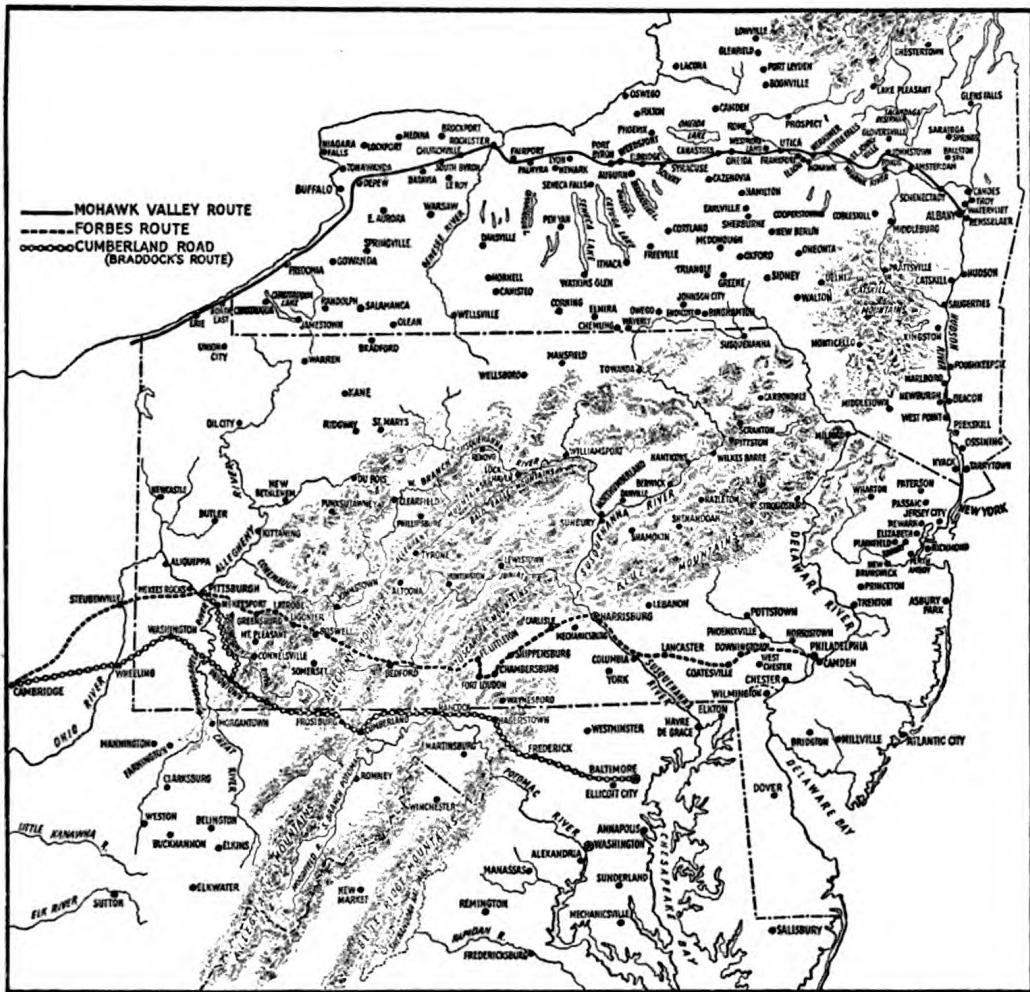


FIG. 23—Westward routes across New York, Pennsylvania, and Maryland, followed by sheep after the American Revolution.

a cloud along their path—The traffic seems like a frieze with an endless procession of figures . . . (for) the cattle and sheep were never out of sight.<sup>1</sup>

No records exist as to the number of sheep that accompanied these migrations, but the journals and letters of early travelers are suggestive of the volume and character of the movement. In 1807 Cuming<sup>2</sup> described "the families moving farther back into the country, some with cows, oxen, horses, sheep, and hogs, and all their farming implements and domestic utensils." An unidentified letter of 1811 from Robbstown, Westmoreland County, Pennsylvania, east of Pittsburgh,

states that "from October 6th to November 6th (1811), two-hundred-thirty-six wagons and other wheeled carriages passed through this place to Ohio. . . . within the same time six hundred Merinos passed the same direction."<sup>3</sup> During the second decade of the century thousands of sheep crossed from Pennsylvania into Ohio annually. On the northern

<sup>1</sup> William H. Rideing, "The Old National Pike," *Harper's New Monthly Magazine*, 59, 354 (November, 1879) :801-6.

<sup>2</sup> F. Cuming, *Sketches of a Tour to the Western Country*, (Vol. 9, *Early Western Travels*, edited by R. G. Thwaites) , 232-35.

<sup>3</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 60-61.

route, between October, 1814, and April, 1816, a resident of Cayuga, New York, reported that fifteen thousand emigrant wagons had crossed the bridge there,<sup>4</sup> with accompanying livestock of all kinds.

Flint,<sup>5</sup> in commenting on the succession of settlers as the frontier advanced, showed that the hunter and trapper who arrived first had a horse, a cow, a few hogs, and some poultry, but lacked sheep and was clothed with furs and skins. As the population increased, he moved on, and was displaced by families with more livestock. Horses, oxen, milk cows, and hogs ranged the woods, but trees that had been girdled to kill them still made so much shade that pasturage was sparse. Relatively few families kept sheep, as their policy was to hold the soil only until the third kind of farmer, the man with money, came along to pay the added value accruing to the land when the settlements became more populous. This man "immediately builds a larger barn than the former, and then a brick or frame house. . . He erects better fences, and enlarges the quantity of cultivated land; sows down pasture fields, introduces an improved stock of horses, cattle, and sheep, and these probably of the Merino breed."<sup>6</sup>

Sheep did not spread down the Ohio River as rapidly as cattle and swine. They tended to cover the hill country of northeastern Ohio, while swine were developing in the Scioto and Miami valleys, and cattle were gaining the strongest foothold in Kentucky. Michaux<sup>7</sup> visited the latter state in 1802 and saw sheep on only four plantations while traveling more than two hundred miles. The northeast quadrangle of Ohio counties (formed by Wayne, Holmes, and Knox counties on the west; Licking, Muskingum, Tuscarawas, Harrison, and Jefferson on the south; and the Pennsylvania line on the east) developed a strong

sheep husbandry before the War of 1812. The valleys of the Muskingum, Hocking, and Scioto, with the Western Reserve, were raising more than three-quarters of the wool produced by the state, and continued to do so throughout the remainder of the century.<sup>8</sup>

Bradbury wrote in 1816 that the upland districts of Ohio especially suited to sheep could be purchased from speculators for as little as fifty cents per acre.<sup>9</sup> Payment of land tax was not required during the first five years, after that it was only \$1.20 per hundred acres on first rate land, \$1.00 on second rate, and 60 cents on third rate or lower. The temptation to buy all the acreage possible was irresistible, and speculators held so much that they could not meet assessments as moderate as these. Hence, sheepmen were extensively solicited as customers, since they were able to earn payments on the lower quality soils.

#### FLOCKS IN THE OLDER STATES

Sheep culture in the older settled regions was devoted more to improvement than to expansion just after the start of the new century. The advent of Merinos turned the attention of the wool growers there to the possibilities of a finer fleece, and a tremendous furore developed in 1807 in the woolen mill districts of New England, when the Embargo Act, prohibiting the importation of woolen goods, was passed by Congress. Almost any kind of woolen

<sup>4</sup> Bradbury, *Travels in the Interior of America, 1809-1811*, 296.

<sup>5</sup> James Flint, *Letters from America, 1818-1820*, (Vol. 9, *Early Western Travels*, edited by R. G. Thwaites), 232-35.

<sup>6</sup> *Ibid.*, 235.

<sup>7</sup> F. A. Michaux, *Travels West of the Allegheny Mountains, 1802*, (Vol. 3, *Early Western Travels*, edited by R. G. Thwaites), 245.

<sup>8</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 539.

<sup>9</sup> Bradbury, *Travels in the Interior of America, 1809-1811*, 282.

mill could be operated profitably, and the census of 1810, incomplete as it was for industries, reported twenty-four such mills in operation. Prices of fine wool reached as much as \$1.75 to \$2 per pound, and may have touched \$4 per pound at some local points. Common wool, on the other hand, did not pass fifty cents per pound.<sup>10</sup> In the face of such prices farmers scurried into the sheep business as fast as they could obtain flocks. Any sheep owner could make money at the prices prevailing, especially the growers of fine wool, and the average farmer not only increased the size of his flock but also the quality of its fleeces.<sup>11</sup>

In New York (excluding the eastern part of the state and Long Island) and in Pennsylvania, the growers largely stuck to their long-legged, narrow-chested, coarse-wooled breeds. Some attempts at improvement had been made, however. In 1811, DeWitt Clinton visited western New York, and wrote in his journal:

In the tavern there was an advertisement of William Wadsworth, dated Geneseo. He proposed to let out half-blooded Merino rams to be delivered on the first of September, each ram to be put to fifty ewes, and no more, before the first of October, and to be returned on the first of June, unsheared. All of the ram progeny is to be returned, and he is to have all of the ewe lambs except two, for each of which he is to pay eight shillings (\$1.00), on the first of September. He charges nothing for the use of the rams.<sup>12</sup>

The language is somewhat ambiguous, but the flock-owner apparently turned all the ram lambs back to Wadsworth, was paid a dollar apiece for two ewe lambs, and was allowed to keep the remaining ewe lambs as replacements in his flock.

In explanation of the general sheep situation in New York, Hedrick stated that "outside Long Island, there were no flocks worth mentioning until as late as 1820. Then, attracted by the high prices of wool, farmers in western and

central New York entered sheep raising with great enthusiasm, some turning all their land into pastures, so that many were left without bread for a time."<sup>13</sup> Maryland and Virginia also turned more and more to sheep, though the Merino craze meant little to them until the War of 1812 barred imports of woolens.

#### SHEEP SHOWS

In 1807 Elkanah Watson started a livestock show or fair in the public square at Pittsfield, Massachusetts, exhibiting two Merino sheep. Watson was a great friend of two of the pioneer supporters of this breed, Colonel David Humphreys of Connecticut and Chancellor Robert Livingston of New York. The original exhibition was merely an attempt to interest the neighboring agriculturists in better stock, and in this particular it was extremely successful. In 1810 Watson persuaded twenty-five friends to exhibit livestock (mostly sheep and cattle) on the village green, and the result was so satisfactory that the Berkshire Agricultural Society was formed to hold such a show annually.<sup>14</sup>

The Berkshire Agricultural Fair may have been antedated by an exhibition at Worcester, Massachusetts, before the Revolution, but Watson's fairs proved permanent. He himself gave up the Berkshire Show in 1814 because of financial difficulties, but by 1820 there were shows in each county of all the New England states except Rhode Island.

<sup>10</sup> Bishop, *History of American Manufactures*, Vol. 2:194-95.

<sup>11</sup> Tench Coxe, *Statement of the Arts and Manufactures of the United States*, University of Pennsylvania Philosophical Association, xii-xiv, xxx.

<sup>12</sup> U. P. Hedrick, *History of Agriculture in the State of New York*, quotes Clinton, 372-73.

<sup>13</sup> *Ibid.*, 373.

<sup>14</sup> P. W. Bidwell and J. I. Falconer, *History of Agriculture in the Northern United States, 1620-1860*, 187.

Show also were being staged in Pennsylvania, Maryland, Virginia, North Carolina, and even Ohio and Illinois. In New York Watson succeeded in promoting fairs in fifty-two out of fifty-eight counties.<sup>15</sup> He stimulated the exhibition of woolen manufactures as well as of sheep, and was able to draw the farm women into competition on home-spuns.<sup>16</sup> His interest in Merinos and woolens initiated the system of fairs under the sponsorship of American agricultural societies.

#### WAR OF 1812

During the War of 1812 the British blockade of Atlantic seaports placed an additional responsibility on American woolen manufacturers. The army developed a strong demand for coarser goods and the effect reached far into the interior. Mills at Steubenville and Marietta benefited almost as much from supplying war requirements as did those east of the mountains. Wool prices skyrocketed, and farmers from New England to eastern Ohio devoted more attention to sheep raising than to any other class of livestock.<sup>17</sup> Best wool sold for \$2.50 per pound, and common wool for 50 cents. Grain which had previously been exported to England down the Ohio and via New Orleans could no longer be sold. Livestock fattening, including wool production, provided the only way to convert the crops into cash.

In 1812 the country had about ten million sheep<sup>18</sup> which was probably 40 per cent more than in 1810, and more than half the number recorded in the first livestock census in 1840. Sheep became the major enterprise on a large proportion of the farms in the North Atlantic States. When the war ended, the output of the domestic woolen mills was three or four times as great as when the war began. Home weaving requirements also had increased.

While the War was going on, many developments in the industry occurred in the noncombatant areas. The wave of sheep migration characterizing the first decade of the century reached 'way out into Indiana and Illinois. The first flocks entered Indiana through Madison on the Ohio, having been shipped down the river, but the earliest sheep in Illinois were established along the Mississippi. In 1797 they accompanied a party of one hundred sixty immigrants from Virginia to a point some forty miles south of St. Louis in the vicinity of New Design in Monroe County.<sup>19</sup> The principal point of entrance to Illinois during the second and third decade of the last century, however, was through Shawneetown on the Ohio, as important a river port to Illinois as Madison was to Indiana. From 1800 to 1808 numerous settlements had been made in both states along the Ohio and Wabash rivers. The immigrants brought the type of sheep grown in the regions from which they came.<sup>20</sup> In December, 1807, an embargo was placed on imported woolens, and sheep raising moved well out into the Mississippi Valley. From this foundation and some imported Merinos, an era of rapid expansion developed during the years 1805-12.

#### NEW HARMONIE

The earliest wool settlement of the West was at New Harmonie. In 1813, George Rapp, a German Lutheran dissenter, purchased about thirty thousand acres on the east bank of the Wabash in

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<sup>15</sup> Elkanah Watson, *History of the Rise of Modern Agricultural Societies*, 180.

<sup>16</sup> Elkanah Watson, *Men and Times of the Revolution*, 369.

<sup>17</sup> E. L. Bogart, *Economic History of the American People*, 2nd ed., 239.

<sup>18</sup> Bishop, *History of American Manufactures*, Vol. 1:181.

<sup>19</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 588.

<sup>20</sup> *Ibid.*

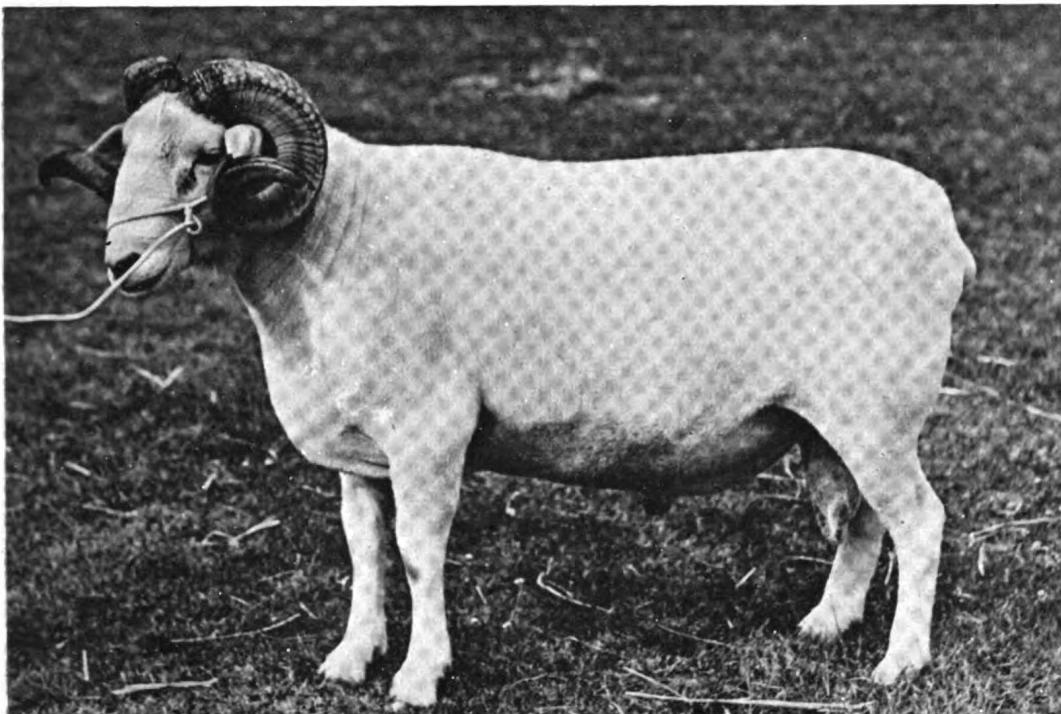


FIG. 24a—Wiltshire ram (after shearing)—modern representative of breed introduced to New England by British Colonists (p. 38). (Photo from *Farmer and Stockbreeder*.)

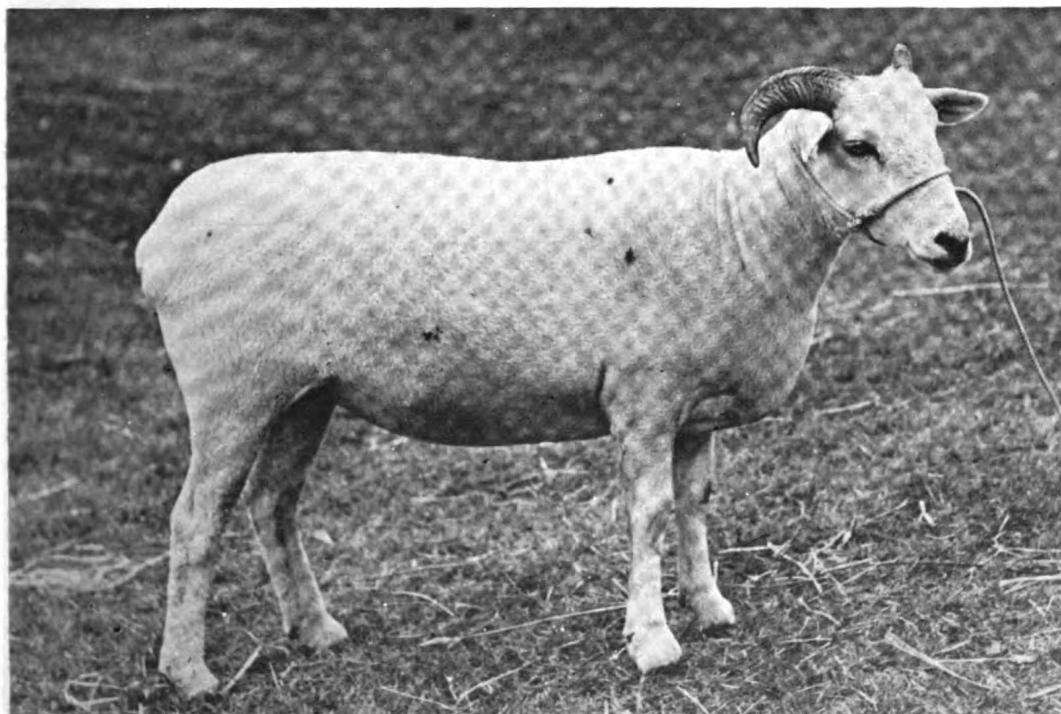


FIG. 24b—First prize Wiltshire ewe at the British Royal Livestock Show, 1939 (p. 38). (Photo from *Farmer and Stockbreeder*.)

Fig. 25—George Washington—farmer (pp. 52, 53).



Indiana and removed to it the communal settlement previously located in 1804 near Pittsburgh. This group was greatly interested in sheep as they owned six thousand dollars worth of them in Pennsylvania (approximately a thousand head), of which one-third were Merinos headed by a thousand-dollar ram.<sup>21</sup> These sheep were transferred to the new venture, which was called Harmonie, and on a part of the acreage the town of New Harmonie was built. When Hulme visited the settlement in 1818 he noted that they had a flock of two thousand head and mills and machines for "manufacturing their various materials for clothing and other uses."<sup>22</sup>

Two kinds of sheep came into early Indiana, the type brought from Pennsylvania and Ohio, or even farther east—small, hardy, and shearing two and a half to four pounds of wool—and the brown-faced breed from Georgia, known as the Moravian, which apparently carried Southdown or Wiltshire blood. The latter was established in Morgan County on the White River, southwest of modern Indianapolis, and spread over the southern part of the state.<sup>23</sup> A few Merinos were introduced previous to 1820, but thereafter the industry lagged for nearly two decades.

The after-effects of the war were especially destructive to fine-wool growers throughout the country. British exports flooded the American market and the artificial nature of the war demand was exposed. Many of the factories shut down, since fine woolens, under a 15 per cent duty, could be imported more cheaply than they could be manufactured domestically. Top prices for the best grade in Boston dropped from \$1.50 in 1815 to 75 cents in 1816, and 40 cents in 1817.<sup>24</sup> Animals were slaughtered in large numbers, half-blood Merinos bringing as little as \$1.25 per head at the butcher's. Only the fact that the net

loss was less when western flocks were neglected than when they or their fleeces were marketed permitted the industry west of the Alleghenies to continue during the three to five bad years that followed the war.

#### THE "ENGLISH PRAIRIE"

An English colony in Illinois, in what is now Edwards County, performed a mission similar to New Harmonie in establishing sheep in that state. In 1817, Morris Birkbeck, a native of England, purchased sixteen thousand acres, and established what became known as "The English Prairie." He was associated with a fellow Englishman, George Flower. They induced numbers of British farmers to join them so that this element exercised the decisive influence in determining whether Illinois should be a slave or free state.

Flower's father came to Lexington, Kentucky, in 1818 and settled in Albion on the English Prairie in June, 1819. By August, 1821, he was able to report four hundred sheep and lambs.<sup>25</sup> John Woods who visited there September 25, 1821, and saw Flower's flock unescorted, reported that the sheep "were poor and coarse, of different sorts, having been collected from several places, and on the whole an indifferent flock."<sup>26</sup> Despite this discouragement, Woods bought a quarter section of land and wrote an

<sup>21</sup> Bradbury, *Travels in the Interior of America, 1809-1811*, 314-16.

<sup>22</sup> Thomas Hulme, *Journal of a Tour in the Western Countries of America, September 30, 1818 to August 8, 1819*, 57.

<sup>23</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 575.

<sup>24</sup> Massachusetts *Agricultural Repository and Journal*, Vol. 4 (1816-17) :201; Vol. 5 (1817-18) : 169.

<sup>25</sup> Richard Flower, *Letters from the Illinois, 1820-1821* (Vol. 10, *Early Western Travels*, edited by R. G. Thwaites), 141.

<sup>26</sup> John Woods, *Two Years Residence in the Settlement on the English Prairie in the Illinois Country of the United States*, 260.

excellent description of Illinois live-stock practices.

Beasts, sheep and pigs, are all marked in their ears, by cutting and notching them, in all possible directions and forms, to the great disfigurement of many of them; yet these marks are absolutely necessary in this wild country where every person's stock runs at large; and they are not sometimes seen by their owners for several months, so that without some lasting mark it would be utterly impossible to know them again. Most people enter their marks with the clerk of the county in which they reside, and no person is then allowed to use the same marks, if living within the same county, and within five miles of the person who has previously entered the same marks. The County Clerk's fee for entering a mark is twelve cents and a half. And no person is allowed to dispute his marks with another of the same marks, unless his are also entered at some county office.

The sheep of this country, and indeed of the whole of America as far as I have seen, are mean when compared to those of England. They are of different sorts, but much mixed. If I can judge their origin, I think the Lincolnshire and Welch sheep are the nearest to their original breeds; but many of them have had a little Merino blood mixed with them of late years. I have seen no sign of the Southdown sheep. There are but few sheep at the prairies, and the greater part of them are very mean ones. But there are a few good Merinos, and some few others tolerable; but in general they are coarse, with very hollow coarse wool; and there are some that have a hairy kind of wool. Nor do I think sheep will be of much service in this part of the country until more land is brought into culture and laid down in cultivated grasses. . . . Few of the American flocks exceed twenty; but most of those who keep a few, shut them up at night to protect them from the wolves. . . .

The Americans keep sheep for the sake of their wool, which is manufactured into various articles of clothing; and at most of their cabins you may see carding, spinning and weaving going forward; for to give the American women their due, many of them are truly industrious, as they manufacture most parts of their dress; and as they grow the cotton, flax and wool, it becomes reasonable. . . .

Wool sells on a small scale, for a half dollar a pound, without much regard to its fineness, which is the reason why sheep are higher than mutton, <sup>22</sup> a sheep of fifty pounds weight will fetch from two dollars fifty cents to three dollars; whereas at five cents per pound, the very top price for mutton, the same sheep would only fetch two dollars fifty cents. Very few sheep are therefore killed here. . . .<sup>23</sup>

There were other flocks in Illinois and Indiana at the time that Hulme, Flower, and Woods wrote, but the Harmonie and English Prairie settlements kindled the interest of more travelers, thus leaving a record behind them. In 1825 Harmonie was purchased by Robert Owen, a manufacturer of New Lanark, Scotland. The German contingent removed to Economy, Pennsylvania, about seventeen miles northwest of Pittsburgh, where an enterprise along similar lines was again constructed. Yet boosters for the West continued, and Baird reported in 1832 that "horses, cattle, hogs, sheep, and poultry of every kind" could be raised with the greatest ease in Illinois.<sup>24</sup>

#### EASTWARD DROVING

Although comprehensive statistics are lacking before the livestock census was established, a surplus of sheep, cattle, and swine in relation to number of settlers began to develop west of the Alleghenies soon after the century opened. Tax records in the new Northwest are incomplete but suggest that more than three-quarters of a million sheep were in this region by 1810.

Since practically none of the immigrants ate mutton, a market for fat sheep had to be sought. The grain surplus from the new farms could not cross the mountain wall to the eastern markets. Moreover, the flourishing trade which developed down the Ohio and Mississippi to New Orleans after the Louisiana Purchase was not sufficient to handle the vast quantity of farm products available. When Bradbury<sup>25</sup> was in eastern Ohio in 1811, he noted that mutton, veal, and

<sup>22</sup> Woods, *Two Years Residence in the Settlement on the English Prairie in the Illinois Country of the United States*, 282-84.

<sup>23</sup> Robert Baird, *View of the Valley of the Mississippi*, 207.

<sup>24</sup> Bradbury, *Travels in the Interior of America, 1809-1811*, 288.

beef could be purchased in that district for five cents a pound. He cited that ordinary workmen could "procure for a day's work, fifty pounds of flour or twenty pounds of beef (or mutton), or three bushels of potatoes, or twenty-seven pounds of pork, or eight fowls, or four ducks, or two ordinary geese, or one very large turkey." Nothing could more clearly establish the food output of the "New West" of that day.

Thin store cattle were being driven from Kentucky to Virginia quite regularly in 1802,<sup>30</sup> but the first experiment in trailing fat livestock back across the mountains was conducted by George Renick. He drove cattle from Chillicothe, Ohio, to Baltimore in 1805, over the route of the National Pike. The success of his efforts became a subject of widespread discussion, and by 1807 droves of sheep and cattle were driven to Philadelphia and Baltimore with considerable frequency. In general, these herds were handled by drovers who made a business of buying at the farms and risking the loss during the long trip east. Some of these men were settlers in the new country, but more of them were professionals from New York, western New England, and Pennsylvania, who saw greater opportunity for gain in the long drives than in the local ones they had conducted previously. Livestock was the only western crop whose marketing was not impeded by excessive cost of transportation.

Two kinds of sheep were driven across the mountains—stock sheep (feeders) to fatten on the farms in eastern Pennsylvania and the Potomac Valley in Maryland, and muttons sold directly to Philadelphia and Baltimore butchers. As early as 1811, these latter included Ohio sheep fed on corn, and were moved over the trail much more slowly than the stock sheep. Drowsing was a seasonal

business, and there were no continuous western receipts at the eastern markets. The bulk of the sheep arrived from mid-April to mid-October, and the greatest profits were made during the first part of the driving period, 1805–15.<sup>31</sup>

Shortly after the war of 1812, a steady movement of fat wethers to the East began. The first drove of fat livestock from Ohio (cattle) to reach New York arrived in the spring of 1817,<sup>32</sup> and sheep soon followed (probably in the third drive). Both sheep and cattle suffered less in quality of flesh than did hogs during the long trips, and they therefore made more satisfactory investments for the drovers. The decline in wool prices by this date also furnished an incentive for the growers to sell their wethers for feeding, or to fatten them out themselves.

In fact, the driving east of fat livestock was the only means of marketing the western corn crop. Between 1817 and 1820 the numbers on the eastbound routes rose tremendously. Throughout the decade that followed, and until the railroads and canals were able to handle the traffic, it is probable that fifty thousand sheep a year were driven to eastern markets. About ten thousand were from Kentucky, six thousand from Indiana, five thousand from Illinois, three thousand from Michigan, and twenty-five thousand from Ohio. The number of sheep from Pennsylvania to New York was difficult to estimate, since these states both raised sheep and fattened those driven there. Their contribution must have been great, though, as Devoe wrote that three-quarters of a million sheep were annually slaughtered in New

<sup>30</sup> Michaux, *Travels West of the Allegheny Mountains*, 1802, 245.

<sup>31</sup> Baird, *View of the Valley of the Mississippi*, 207.

<sup>32</sup> Thomas F. Devoe, *The Market Book*, 411.

York, Philadelphia, and Baltimore, at the time the railroads took over the task of the drovers.<sup>33</sup>

While the southern route was most popular for cattle and hogs,<sup>34</sup> sheep were driven more regularly over three northern routes. From southern Michigan, the northern part of Ohio, and the northwest angle of Pennsylvania, the drovers favored a route not far from Lake Erie, through Erie, Pennsylvania, Dunkirk, New York, along the Erie Canal, and down the Mohawk and Hudson valleys. From central Ohio and western Pennsylvania, most of the drovers followed a route past Pittsburgh, via Bedford or Altoona, and through Carlisle to Philadelphia. Along the Ohio River and from Indiana, Illinois, and Kentucky, the majority of drovers turned onto the Cumberland Pike at Wheeling. Those headed for Philadelphia went through Bedford, while those headed for Baltimore went down the Potomac.

Throughout the twenties, the volume of traffic over these pikes was tremendous. In 1820, three thousand of the four-horse freight wagons were driven west from Philadelphia to Pittsburgh, while unnumbered droves combining cattle and sheep moved eastward, composed of a thousand to two thousand head each.<sup>35</sup> There were also droves of four to five thousand hogs. Travelers were not only astonished at the size of the herds, but complained severely of the dust they raised. In 1830, Fowler was en route between New Hartford and Trenton, New York, some fourteen miles from Utica. He overtook "one of the largest droves of sheep . . . seen on any public road in the state; there must have been some thousands. . . . The very recollection of the atmosphere of dust we had to respire through, sets me coughing and sneezing even now."<sup>36</sup> Lucian Minor covered several main routes and in 1836 reported that

he had to go through two herds on November 27, as well as two droves the day following. For more than a week preceding, he had passed through one to three droves daily.<sup>37</sup>

#### HANDLING THE DROVES

While some drovers handled only one species of livestock, most of them trailed mixed herds. The cattle were usually driven first, and the dogs followed along behind them and on the side. In some cases the sheep just followed behind the cattle; in others, sheep dogs (as distinguished from cattle dogs) were used to control them.

They (sheep) don't need much tending. After the first day or two, they get to know the cattle and crowd in close behind them without any urging. It's curious, anyhow, to see how a drove of livestock will form itself into a herd after one or two days of marching. They seem to get acquainted with each other, they become kind of a big family—the cows, the sheep, the dogs, the horses and the boys. . . . This flocking spirit was a great help on the journey. Because pretty soon after leaving Ohio and getting over into Pennsylvania, the country became so wild.<sup>38</sup>

Most drovers took no crew of drivers with them but depended on picking up boys to help them as they went along through the country. Usually these boys were not allowed to go very far from

<sup>33</sup> Thomas F. Devoe, Letter to William McCombie, Tillyfour, Aberdeenshire, Scotland, December 12, 1860, in possession of Robert C. McCombie Auld, New York.

<sup>34</sup> Frederick J. Turner, *The Rise of the New West*, 102. Senator Hayne claimed more than a million dollars' worth of cattle and hogs passed through Saluda Gap in 1824, while the toll house at Cumberland Gap in 1828 registered \$1,167,000 worth of livestock, including a few sheep.

<sup>35</sup> I. F. King, "The Coming and Going of Ohio Drowsing," *Ohio State Archaeological and Historical Society Quarterly* (1908) states that most herds of cattle only varied between one and two hundred head, 247-53.

<sup>36</sup> John Fowler, *Journal of a Tour in the State of New York in the Year 1830, with Remarks on Agriculture*, 167.

<sup>37</sup> James Russell Lowell, "A Virginian in New England Thirty-five Years Ago," *Atlantic Monthly*, Vol. 26 (August, 1870) :170.

<sup>38</sup> Bouck White, *The Book of Daniel Drew*, 82.

home and then had to be replaced. In many instances they could go for one day only and had to return home at night after completing the day's drive. In other cases they were allowed by their parents to stay one night, make the second day's drive, and then walk the two days' drive home. However, through the Pennsylvania mountains, settlements and farms were farther apart and the same boys were usually employed for several days.

The drover had to be more than a mere driver; he was a capitalist and manager. Each day he went ahead to pick out the road and make arrangements for feed and shelter for the night. He also had to locate suitable places for fording rivers or, if the streams had steep banks and a small amount of swimming was necessary, he had to find proper approaches to, and departures from, the water. Finally he had to make the arrangements for hiring and, where necessary, for returning the temporary drivers.

Losses were not usually great. Sick or footsore animals could be traded or used to pay the daily bills. Newborn lambs with their mothers had to be left behind and frequently formed a convenient unit with which to pay for shelter. Occasionally wolves would cut out a sheep or a calf. But the hazards were light compared to those faced later by men who trailed beyond the Missouri.

#### END OF THE DROVING PERIOD

Droving ceased for a number of reasons. As the big cities increased in population it became more and more difficult to drive through their streets into the livestock markets. The butcher buyers, therefore, came out into the country to meet the drovers, but the butchers soon had as much difficulty driving to their slaughter houses as did the drovers. In colonial New York the livestock market was at Wall Street, but

by the mid-thirties it was not far from Forty-Second Street and Broadway. When the houses reached the "eighties" north, droving on foot in Manhattan disappeared.

Water transportation made it easier to move wool and barreled or salted meats<sup>39</sup> than to drive the animals overland. The New York canals opened for traffic throughout the entire length in 1825, and freight rates from Buffalo to Albany were reduced 90 per cent. Beginning with that year, small shipments of western wool were handled, the amounts gradually increasing.<sup>40</sup>

Finally the railroads came into the picture. Charles Carroll, of Carrollton, Maryland, signer of the Declaration of Independence, placed a stone marker July 4, 1828, signaling the construction of the Baltimore & Ohio Railroad. Seven years later the first livestock shipment was made by this road. That same fall the combination of rail and canal lines that became the Pennsylvania Railroad also transported livestock from Pittsburgh to Philadelphia. It was roughly estimated that it cost about 10 per cent of the final value of the driven livestock to move them from their point of origin in the West to the Baltimore, Philadelphia, or New York markets.<sup>41</sup> During periods of low prices it might cost as much as 19 to 26 per cent. The railroads were able to undercut this cost with a much smaller actual loss of weight.

#### THE SPREAD OF WOOLEN MILLS

The panic of 1819 gave a sharp check to woolen manufacture, but when the surplus was worked off, an actual short-

<sup>39</sup> Agriculture of the United States in 1860, *Eighth United States Census*, cxxxii.

<sup>40</sup> Johnson, Van Metre, Huebner, and Hanchett, *History of the Domestic and Foreign Commerce of the United States*, Vol. I, 220.

<sup>41</sup> Charles T. Leavitt, "Transportation and the Livestock History of the Middle West to 1860," *Agricultural History*, Vol. 8 (January, 1945): 75.

age of wool stocks developed. Mills were therefore established on principal water power sites throughout New England. In 1822 such an old agricultural town as Dover, New Hampshire, was boasting of twenty thousand spindles along the Cocheco River. Agitation commenced for a protective tariff. English manufacturers quit buying and both American manufacturers and growers needed support against another influx of low-priced woolens. Unfortunately, the tendency for the manufacturer to deny the grower the protection which he required for himself was being manifested at that early date.

A new tariff went into effect in 1824, but the craze for ultra-fine wool and the frauds perpetrated in connection with it threw the industry into a new slump. Then the British "panic" of 1826 forced dumping of English worsteds onto the American market, much of the volume coming from bankrupt mills. American manufacturers suffered greatly from this competition and many domestic mills were forced to close down. Another tariff was completed in 1828 to better this situation, but it was a patchwork affair, affording temporary relief only.

#### SETTLEMENTS ON THE MISSOURI

Settlers in the French villages on the Mississippi and Missouri still seemed quite content to follow the farm practices of their forebears in 1800, basing their diet on their wheat. But it was not long until insurgents against that standard of living were calling for meats and a more varied menu. Alexander<sup>42</sup> reports that the French were then beginning to raise a little corn for their horses and cattle, and by the completion of the first decade of the century they were running a few sheep to produce their warmer clothing and footgear.

The influx of Americans about 1800 changed the sheep picture materially.

By 1814 Claiborne S. Thomas was operating a wool-carding machine at Jackson, fifty miles south and slightly east of Ste. Genevieve. Halfway across the state along the Missouri River, N. S. Burckhart and John McDonnell each had similar establishments at Franklin. McDonnell's carding mill was located six miles out on the road to Chariton, where he charged ten cents per pound for carding, but would accept "one pound of hog's lard or oil for every pound of wool." A double wool carding machine was set up in St. Louis in 1820, by "Olly" Williams.<sup>43</sup>

#### THE "RED RIVER" DRIVE

The most interesting ovine episode of the 1830's was the drive from Kentucky to the Red River settlements along the Canadian-Dakota boundary. In 1811 the Hudson's Bay Company granted to the Earl of Selkirk a large tract of land between the present boundary of the United States and Lake Winnipeg. This settlement became the center of bitter competition between the Northwest Fur Company and the Hudson's Bay Company, but after 1821 the little colony began to boom. By 1830 the spirit of speculation was high. Under direction of the Hudson's Bay Company's governor, it was decided to import sheep from the United States, and the sum of twelve hundred pounds (\$6,000) was raised. A young Scotchman from Perthshire, Robert Campbell, son of a sheep farmer, was brought out for technical assistance, and the whole expedition placed under the command of William Glen Rae, an experienced Hudson's Bay Company clerk. Starting southward November 8, 1832, the company suffered several un-

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<sup>42</sup> Joseph H. Alexander, *Report Showing the Condition of Agriculture in St. Charles County, Missouri*, 3.

<sup>43</sup> Houck, *The Spanish Regime in Missouri*, Vol. 3:187.

pleasant experiences with a Midwest American winter, but covered eighteen hundred miles in fifty-six days.

They first attempted to assemble a flock in the upper settlements of the Missouri. Though they scoured the country, they were unable to buy sheep due to the needs of the settlers. A contractor also failed them, and a similar trip through western Illinois proved unproductive. Rae therefore made the journey to Kentucky which all had advised from the beginning, and procured 1,370 head by May 7, 1833.

All went well for a time. They crossed the Ohio at Madison, Indiana, and struck diagonally across the state to Terre Haute, which they reached May 22. The sheep traveled ten to eleven miles daily. Here they headed for Fort Clark (Peoria) on the Illinois River, and five days later ran into the "spear grass"<sup>44</sup> which nearly ruined the enterprise. Campbell's journal tells the story:

*June 8: For the first time we saw that dreadful scourge, the Spear Grass, growing pretty thick along our route, and noticed a few awns sticking in the wool of the sheep. . . .*

*June 10: . . . The Spear Grass was now telling severely on our flock. Before this we had never seen nor heard of this destructive grass. If we had known its disastrous effects we could have avoided it by making a detour or by waiting till the grass ripened and fell, and thus our flock and selves would have been spared much suffering and pain. The spears worked into the flesh of the sheep, causing putrefying sores, which were infected with maggots; then mortification set in and the result was the death of the victim. The flies were also a constant plague to the poor sheep which hardly got peace to snatch a mouthful. . . .*

*June 13: . . . After crossing the Mississippi, we were employed shearing the sheep and lambs and pulling the spears out of their flesh. This was sickening work, some of the sheep being one moving mass of maggots and matter. All the time the flies were maddening. . . .*

*June 25: . . . Our sheep were dropping off and dying in twos and threes; . . . For sheer curiosity we examined the bodies of some of the dead sheep and counted the spears imbedded in the*

carcasses. The number in some cases seems incredible, amounting to several hundred, some of the spears being several inches deep in the flesh. . . .

*July 7: . . . From the effects of the Spear Grass ravages our flock was now diminished to 670. . . .*

*August 11: . . . Our flock of sheep now numbered 295 only. . . .*

*September 16: . . . Reached Fort Garry (Winnipeg) at noon and got the sheep and horses across the (Red) River before dark.<sup>45</sup>*

While crossing the Sioux country, in the vicinity of the Minnesota River and Lake Traverse on the Minnesota-Dakota boundary, they had some disturbing adventures with the Indians, but no losses. These were the first sheep most of the Indians had seen and the curiosity of their chiefs outweighed the lawlessness of the "bad" Indians. The former actually escorted the flock across the dangerous country.

#### THREE DECADES OF EXPERIENCE

As the first third of the eighteenth century closed, there were about thirteen million sheep in the United States. Half of them were in Vermont, New York, and Pennsylvania. Western New York had been substituting sheep for cattle, and flocks beyond the Alleghenies were assuming an air of permanence that belonged with the occupation of the country.

The first third of the century also provided the tariff experience that proved so essential to the later development of the industry. A series of severe, short-term crises in the wool business led to much experimentation in the tariff structure, and laws were passed in 1824, 1828, and 1832. The tariff of 1828

<sup>44</sup> Identification of the "spear grass" is difficult. In a letter to the author, December 12, 1941, Dr. W. S. Burlison, University of Illinois, quotes Dr. R. F. Fuelleman as identifying it tentatively as *Stipa sparteo*, the needle or porcupine grass.

<sup>45</sup> Robert Campbell, "A Journey to Kentucky for Sheep," *North Dakota Historical Quarterly*, Vol. 1, 1 (October, 1926) :42-44.

proved particularly unsound and was christened the "Tariff of Abominations" because of its manifest inequities and the absurdly high rates on woolen goods. The duty on wool was four cents a pound, in addition to an *ad valorem* assessment of 40 per cent which rose to 50 per cent in 1828. Coincidentally, conditions in the British and general European wool trade were improving, so American growers and manufacturers were both in a good position during the early thirties.

By 1835 the entire country as far as the Mississippi River was equipped with flocks. Efforts to take inventory of the American position in sheep and wool were beginning to interest private citizens and woolen manufacturers, as well as the government. Two private compilers in 1835, C. Benton and S. F. Barry,<sup>46</sup> personally visited many of the states and produced estimates which, allowing for natural increase and apparent trends, fitted reasonably well with the census compiled five years later.

	Estimate 1835	U. S. Census 1840
Maine .....	622,619	649,264
New Hampshire .....	465,179	617,390
Vermont .....	1,099,011	1,681,819
Massachusetts .....	373,322	378,226
Rhode Island .....	81,619	90,146
Connecticut .....	255,169	400,462
New York .....	4,299,879	5,118,717
New Jersey .....	250,000	219,285
Pennsylvania .....	1,714,640	1,767,620
Delaware .....	150,000	39,247
Maryland .....	275,000	257,922
Virginia .....	1,000,000	1,293,772
Ohio .....	1,711,200	2,028,401
Kentucky .....	600,000	1,008,240

#### MIDWEST EXPANSION

Activity in the sheep industry was great throughout the thirties. The tariff acts were passed at a time when the westward movement was proceeding at a high rate, and many settlers, who might otherwise have left their flocks in the East, took them to their new homes

instead. Although wool prices fluctuated, the business continued to be satisfactory through 1841. The commercial surplus of wool which had been accumulating in the trans-Allegheny region as far as the Mississippi during the late twenties and early thirties, was beginning to find better market outlets. Manufacturers were exercising a steadier demand, as measured by boat loadings on the Erie and Ohio canals, than had been reflected previously. Traffic in wool over the Erie Canal had been quite uniform in the early thirties, though it fell off sharply in 1837 when the banks suspended specie payments, and an increase in imports caused a brief decline in volume. Clearances of wool at Buffalo<sup>47</sup> showed:

	lbs.	lbs.	
1834.....	186,000	1838.....	109,000
1836.....	252,000	1839.....	131,000
1837.....	39,000	1840.....	170,000

While the panic of 1836 affected all agriculture unfavorably, sheep were not injured as much as other agricultural activities and the wool trade continued relatively strong.

#### DECLINE OF HOME WOOLEN INDUSTRY

From the late twenties forward, home weaving declined. Prices in the fine-wool market became somewhat depressed, but American manufacturers of the coarser woolens had survived their proving period and were gaining in their competition with the household industries. The New York State Census of 1825 showed a production of 16.5 million yards of homespun woolens, while the census twenty years later showed only 7 million yards. Meanwhile the population had been increasing so much

<sup>46</sup> C. Benton and S. F. Barry, *A Statistical View of the Number of Sheep*, 9, 106.

<sup>47</sup> *Niles' Register*, September, 1845, to March, 1846, Vol. 19 (fifth series) :54.

that the corresponding per capita figures were nine yards and two and three-quarter yards. Wright<sup>48</sup> estimates that in 1830 nearly half the domestic wool clip was still utilized for household manufacture, though the proportion was dropping rapidly. The real reason for the decline was that rail transportation was permitting the domestic mills to lay down their products in the West at prices which could compete successfully with family weaving.

In 1837 American woolen manufacturers used 38.3 million pounds of fleece, of which 10 million pounds were imported. These imports were coarse wools from Asia Minor and South America,<sup>49</sup> rather than fine wools. When the first sheep census was taken in 1840 home spinning and weaving were rapidly falling off. Exhibits of household skill in woolen fabrics at the county fairs had disappeared in many regions and sales to country stores continued to reduce annually.

The general application of power and improved machinery cut the cost of cloth manufacture more rapidly than could be anticipated, and the development of canals and railroads reduced the freight costs on most of the wool that was shipped east. Soon the cost of shipping wool to the factories and of delivering the goods back to western markets became so cheap, relatively, that the incidence of home spindles declined greatly during the forties. Also, the great freighters' wagons rolling the highways to the West practically disappeared.

#### CONTRASTS OF THE FORTIES

During no single decade have there been as many sharply contrasting changes in the sheep industry as during the forties. The 1840 census showed 19,311,000 sheep in the country, shearing nearly thirty-six million pounds of wool. Sheep raising in New England was in

its heyday, and farmers were involved in a real "sheep mania." Every town in Vermont, except for the region nearest the Canadian frontier and some of the less accessible districts in the Green Mountains, had at least a thousand sheep, while twenty had between ten and twenty thousand, and three had over twenty thousand.<sup>50</sup> Long drives to market had been undertaken all through the thirties, the drovers leaving northern Vermont and New Hampshire for the Brighton market outside Boston. The flocks moved slowly, fattening en route. Just before the census, five to eight thousand sheep were arriving at Brighton market daily from Vermont, New Hampshire, and Maine.<sup>51</sup>

The center of density in sheep breeding was in Addison County, Vermont. Swift<sup>52</sup> determined from the 1840 census that this county had 370 sheep per square mile, as compared to 334 for Grand Isle County, 283 for Rutland County, 261 for Windsor County, and 185 for Vermont as a whole. Comparing neighboring states with Vermont, New York had 112 head to the square mile and New Hampshire 65. Only New York, Ohio, and Pennsylvania exceeded Vermont in total sheep population, and the latter by a scant eighty-six thousand head. New York had the greatest number of sheep in its history, 26.5 per cent of the total United States population, and more than at any later census.

Almost 60 per cent of the sheep were in the older New England and Middle Atlantic states. The panic of 1837 was

<sup>48</sup> C. W. Wright, "Wool Growing and the Tariff," *Harvard Economic Studies V*, 75-76.

<sup>49</sup> *Ibid.*, 85.

<sup>50</sup> Benton and Barry, *A Statistical View of the Number of Sheep*, 22-34.

<sup>51</sup> Harold F. Wilson, "The Sheep Industry in Northern New England," *Agricultural History*, 9, 1 (January, 1935) :14.

<sup>52</sup> Samuel W. Swift, *History of the Town of Middlebury*, 98.

more disastrous in its effects on the western states than on the eastern. Credit conditions in the West were stringent for several years. More capital was required to embark in the sheep enterprise than to break grain land, while the corn or wheat crop could be cashed in sooner. Also a certain amount of farm improvements in buildings and fences was required to make a start in sheep. It was therefore natural that the eastern wool grower should continue his dominant position throughout most of the forties.

During most of this period the cost of keeping sheep in the East, as compared with the West, had not begun to show the disparity which developed after the Civil War. In the older states the annual cost per sheep was estimated at a dollar a head,<sup>53</sup> although if every item were charged against the sheep the total would probably have been nearer a dollar and a half.<sup>54</sup>

Often the actual figures on annual costs were not determined, but the expense was charged against the wool clip or the lamb. When the lamb was used as the buffer, it was normally not considered valuable enough to offset the feed, so feed costs were deducted from wool values to determine the annual profit. When the wool was used to meet the cost, an average price of forty cents per pound was required, as few flocks of sheep in the East averaged over a two and one-half to three pound clip per head. Breaks in wool prices in 1841 led to tremendous slaughter. The carcass, tallow, and pelt of the animal became worth more than the shorn fleece, and many Ohio slaughterers began manufacturing the mutton tallow into candles.

Fine Ohio wool worth seventy cents in New York in 1837 brought only thirty-five cents in 1843, and both medium and coarse wool prices were cut in half as well. All over the West the

slaughter of sheep developed, and the culled and diseased, as well as the good wethers, went to the block. Among the more intelligent farmers, a thorough weeding out of the inferior animals and a renovation of flocks occurred.<sup>55</sup> Many took advantage of the lower prices to bring on better sheep from the East. During the decade 1840-50, Ohio, Kentucky, Indiana, Illinois, Michigan, and Wisconsin added 52 per cent to their flocks, increasing from 5,211,375 head to 7,932,887 head.

#### RENEWING WESTERN DRIVES

Throughout the forties a second era of western drives developed, large flocks being moved from Pennsylvania and Ohio into Wisconsin, Illinois, Missouri, and Iowa. Dairying continued to drive wool-growing out of the older states, and the apparently low costs of production in the West were interesting more and more sheep men. Furthermore, in the West, beef and pork prices had dropped more than wool, and the loss of the first flush of soil fertility, especially in Ohio, made sheep production appear most attractive. The number of sheep in Ohio increased 94 per cent during the forties and 149 per cent in the western region outside of Ohio and Kentucky—a region in which wool production previously had been neglected.

By 1843 the rate of westward movement was almost as impressive as at the opening of the century, and interest in sheep spread rapidly all over the prairies.

<sup>53</sup> Thomas Ewbank, *Report of the Commissioner of Patents for 1849*, Senate Exe. Doc. 15, 31st Congress, 1st Session, Vol. 8, Part 2, "Agriculture," 242, quotes Isaac Hubbard of Claremont, N. H.

<sup>54</sup> L. G. Connor, "A Brief History of the Sheep Industry of the United States," *Annual Report*, American Historical Association (1920), 115.

<sup>55</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 549.

Two classes of farmers were interested—first, those who had grown sheep successfully farther east but who were looking for new farms where they could operate more cheaply; and second, those who already were established in the new country but who desired the advantage of a nonperishable, easily transported crop like wool that would help market their grain crops. In the latter class was a farmer of Kane County, Illinois, who offered in 1843 to care for a thousand sheep,<sup>56</sup> retaining either the fleece or the increase for the keep. Nothing was said of death losses.

During the forties the volume of such operations increased enormously, as the new means of transportation permitted a better organization of wool selling. For example, there were 107,794 pounds of Ohio wool shipped via the Erie Canal in 1840, and 8,805,817 pounds in 1850. By 1845 the tonnage had increased twenty-eight times as compared to 1840,<sup>57</sup> and by 1850 was more than eighty times as much.

As the forties closed, the lower costs of operation in the West were again catalyzing a transfer. The numbers in the older states were definitely declining. The three principal influences in bringing about this reduction in eastern sheep population were the increased imports from the developing flocks south of the equator, the greater profits in dairying on the average farm, and the lowered costs of transportation out of the West, which the increased facilities on the Great Lakes connecting with the eastern canals and the newly operating railroads permitted. The economic development of the East reached a point in the early fifties where its resources and opportunities could be more profitably used for other purposes. A few eastern breeders switched to mutton sheep, but the abolition of the English Corn Laws, the Irish

famine, and the Crimean War rekindled interest in the direct marketing of grain at the expense of livestock.

#### PRAIRIE TRAIL EXPERIENCES

The most characteristic item of the forties carried over into the fifties was a continuation of the great sheep drives to the prairies and beyond. In August, 1843, Solon Robinson<sup>58</sup> bought eight hundred head of "good common sheep," averaging half-blood Merino, in Champaign and Clark Counties, Ohio, some three hundred-odd miles from Chicago. Prices ranged from 50 cents to 87½ cents per head, and on five hundred head, for which he originally bargained himself, the average cost was 66⅔ cents per head. In general these sheep were bought along the banks of the Mad River, and the route followed led northwest from Springfield and Urbana through Sidney and St. Mary's to Wiltshire at the Indiana boundary. Thence Robinson continued across Indiana by Fort Wayne, Goshen, South Bend, and LaPorte toward Chicago.

Robinson stated that two good drivers could normally handle five to eight hundred head, although three men were better and sometimes necessary. The equipment for the drive was simple—a light two-horse wagon with a feed trough attached behind; a good tent made of thirty yards of cotton drilling; two buffalo robes, three blankets; one water bucket, one tea kettle, one coffee pot, one frying pan, a small pot, six round tin plates, three cups, three knives, three forks, a little butter pail, a wooden sugar box, and a "few small fixings" in the provision

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<sup>56</sup> *The Prairie Farmer*, Vol. 4, 9 (September, 1844) :205.

<sup>57</sup> Connor, "A Brief History of the Sheep Industry of the United States," 113.

<sup>58</sup> *The Prairie Farmer*, Vol. 4, 9 (September, 1844) :205 ff.

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chest; a pound of ground coffee in a little bag (coffee was needed to kill the taste of bad water), forty pounds of bacon, a week's supply of bread, a bag of potatoes; a horse bucket; two or three bags of oats, a trunk of necessary clothes (old ones), an axe, an auger, a "little spare rope," and a few leather strings.

He recommended setting the tent up "like a house," on a ridge pole supported by two posts seven feet long and sharpened on the ends so they could be easily "stuck in the ground." The edges of the tent were fastened with pins, and one gable was closed; the other, toward the fire, open. For a table he recommended a broad board to be set on four stakes stuck in the ground.

This equipment enabled him to camp wherever he could obtain wood and water, without adjusting his daily drives to the location of taverns. The distance covered each day averaged about ten miles, when necessary to yard the flock at night, and about thirteen miles when they could be held on pasture. Apparently the extra time was necessary when the sheep were yarded in order to permit them to feed longer along the highway or trail. His actual cost of driving in 1843 was 4 $\frac{3}{8}$  cents per head, while the additional cost of men and horses brought the total up to 9 cents apiece.

Throughout the forties hundreds of Ohio and Pennsylvania wool growers drove bands through to Illinois. In general, ewes were not driven because of the cost, unless the drover planned to establish a purebred flock or to sell to a breeder of registered sheep already located. For example, George Flower of Albion, Illinois, aided Bauer and Eno<sup>59</sup> of Sangamon County in bringing three thousand five hundred ewes and eighty rams from western Pennsylvania and Ohio.

The year 1844 saw the greatest drives into Illinois, Wisconsin, and Missouri, which contemporary writers<sup>60</sup> described as "a perfect tornado." Unfortunately many of the drivers were extremely ignorant of prairie conditions, and sheep died en route, or at the new locations, from lack of shelter against winter storms, from prairie wind, from wolves, and most frequently of all from lack of winter feed during their first season in the West. The *Prairie Farmer*<sup>61</sup> in 1847 estimated that 50 per cent of the sheep driven to the prairies died the first year. This resulted in an unsound, though widespread, eastern opinion that the prairies were not suitable for sheep production.

Part of the cause of the big drives was the unfavorable wheat price of the early forties. This caused all farmers west of the Alleghenies to seek a substitute for that crop. These prices began to rise in 1844 and the demand for sheep in the following years diminished in proportion to the improvement in the wheat market. The late forties saw a wheat boom and the failure of winter wheat in the early fifties was necessary to drive home to the northern Illinois, eastern Iowa, and southern Wisconsin farmers the desirability of a generalized system of farming. Few specialized sheepmen operated west of Ohio and southern Michigan, but some large flocks existed in connection with other types of farming. Peoria County was the center of sheep production in Illinois about 1850. An agricultural writer<sup>62</sup> the previous year reported five flocks of one thousand to two thousand head in that vicinity,

<sup>59</sup> Bidwell and Falconer, *History of Agriculture in the Northern United States, 1620-1860*, 415.

<sup>60</sup> *The Prairie Farmer*, Vol. 4, 9 (September, 1844) :204.

<sup>61</sup> *Ibid.*, Vol. 7, 7 (July, 1847) :213.

<sup>62</sup> *Ibid.*, Vol. 9, 9 (September, 1849) :296.

two flocks of five hundred to one thousand head, and three flocks of three hundred to five hundred head. When Dr. Flint<sup>63</sup> and associates purchased the sheep for their California drive of 1853, they obtained all of their animals in the area between Peoria and Quincy, Illinois, around two thousand head.

#### HANDLING PRAIRIE FLOCKS

Although the prairies came to have a large sheep population by the end of the forties, the majority of the owners extended little care or protection to their flocks. Practically all of the growers turned their sheep onto the prairie from spring through fall and many were left there for the entire year. The only shelter was provided by straw stacks or rail fences. Under these conditions death losses, especially of lambs, were exceptionally high. Before the open prairie was completely homesteaded, many growers sent their flocks out each spring under the care of a shepherd who provided them with salt and kept a general supervision over them. The season on the native prairie herbage was far too short, however, and the grasses dried up early in the fall with very little nutritive value left. Randall wrote:

But a very few years have elapsed since the most sanguine anticipations were indulged in by large numbers of our northern and eastern flock-masters in relation to the superior capabilities and advantages of the prairies over eastern lands for sheepwalks; and large flocks were driven hundreds of miles . . . to realize these supposed advantages. It is not too much to say that these anticipations—so far as keeping sheep on the natural herbage of the prairies is concerned—were briefly and summarily blasted. Many of the flocks driven there actually perished in the midst of seeming plenty.<sup>64</sup>

The successful sheep growers found that the natural prairie grasses fell far short of requirements, and that a successful husbandry could be secured only when the sod was broken and hay and grains

produced. Then the cost advantage over the East was neutralized or lost. The industry was not established firmly until the flocks which were grazed on the prairie could be put on tame grass pastures in the fall and then turned into narrow enclosures and fed hay and a little oats and corn throughout the winter.

#### FURTHER MID-CENTURY SHIFTS

Sheep were introduced in large numbers into southern Michigan in the late thirties, but the industry did not become thoroughly established until the mid-forties. About this time sheep began to move rapidly into Wisconsin as well. It is estimated that there were thirty thousand head in Michigan in 1845, and that there were one hundred twenty-five thousand head in 1850.<sup>65</sup> The early sheep had come from Pennsylvania and New York, the later from Ohio.

During the forties the number of sheep west of the Ohio boundary (Indiana, Michigan, Illinois, Wisconsin, Missouri, and Iowa) more than doubled—1,522,752 head to 3,800,338. All of the states east of Pennsylvania and Ohio declined in numbers during the same period. New York suffered particularly. The state census of 1845 showed that New York had 6,443,865 sheep, while the federal census of 1850 showed only 3,453,241 head. More dairy cattle were adopted on up-state farms and many more acres

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<sup>63</sup> Dr. Thomas Flint, "Diary, California to Maine and Return," *Annual Publications, Historical Society of Southern California*, (1923), 15-19.

<sup>64</sup> Henry S. Randall, *Sheep Husbandry*, 96. Randall was the most practical and prolific writer on sheep husbandry in the United States in the period 1840-60, and maintained flocks of all the popular breeds of sheep—American, Saxon, and French Merinos, Cotswolds, Leicesters, Southdowns, Cheviots, and Oxfords—at different periods in his experience, although he bred American Merinos continuously. His farm was near Cortland Village, New York.

<sup>65</sup> Connor, *A Brief History of the Sheep Industry of the United States*, 116.

were put to crops.<sup>66</sup> In Massachusetts, sheep were reduced more than one hundred sixty thousand head, while pastures were increased one hundred thousand acres and crop lands forty thousand acres to meet the growing demand for dairy feeds. The 1849 report of the Commissioner of Patents blamed the low price of wool and sheep-killing dogs for the reduction. "Sheep-killing dogs get about one out of four hundred head, but sheep-stealing humans get more."<sup>67</sup> However, Ohio had an increase of nearly two million head, with more than a half million each in Indiana, Michigan, and Illinois.

During the fifties the same type of movement continued. Without any significant change in the total sheep population for the United States as a whole—three-quarters of a million head increase in ten years—the older states from Pennsylvania eastward lost 1,968,411 head, and the western states gained 2,716,411 head. Of these latter the principal increases were in the new states of Texas, New Mexico, and California. Perhaps the census of 1850 did not do these old Mexican provinces full justice, and the increase therefore may have been more apparent than real.

A new factor causing a decline in sheep growing in the states of Ohio and Kentucky began to be felt as the fifties closed. The spread of the railroads and the consequent increased marketing opportunities advanced land values in these states materially and it became increasingly unprofitable to raise sheep. Corn and feed values mounted because the crops could be marketed, and the profit from selling corn, wheat, and other cereal crops made the farmer still unwilling to devote the necessary attention to sheep.<sup>68</sup>

#### SHEARING ON THE PRAIRIE

Before starting on a spring sheep drive it was customary to shear the flocks and

market the wool. Flint gave an interesting description of such an operation on the prairie near Warsaw, Illinois, in the spring of 1853.

*April 22nd: . . . Left the flock in charge of Bixby and help, and went to Warsaw to make arrangements for a place to shear the sheep and shearers to do it. . . .*

*Saturday, 23rd: . . . About noon went out to meet the flock and drive them into Dr. English's pasture three miles from town. . . . The rest of us drove to Warsaw where we found Ben (Dr. Flint's brother) and Lewell (Dr. Flint's cousin, Lewellyn Bixby) engaged in shearing sheep.*

*Saturday, 30th: Took care of the sheared sheep out on the prairie. Something like work, for the sheep were not accustomed to being held in that manner, but the ground was quite dry so that it was good riding.*

*Monday, May 2nd: Herded sheep again alone, taking my dinner in my pocket. . . .*

*Tuesday, 3rd: On the prairie again with the sheep, assisted by Salem Hammond, a boy. Getting to be quite a large flock making considerable work to keep them together as they naturally break up into small lots.*

*Wednesday, 4th: Out with the sheep again with Dan. Wet and uncomfortable. Ground so soft it is hard getting around on our horses.*

*Thursday, 5th: Still a shepherd with a dog, the first day I have had one. Should have a gun, for the wolves are troublesome, not so much so on the prairie as near timber.*

*Friday, 6th: Finished shearing. Am at leisure except to look out that the men keep the sheep together.*

*Monday, 9th: Returned to Warsaw myself to look for a sale of wool.*

*Tuesday, 10th: Packing wool.*

*Wednesday, 11th: Finished packing wool. Sold it to Connable Smith & Co., at 24½ cents per lb., delivered at their store in Keokuk.*

<sup>66</sup> Report of the Commissioner of Patents for 1852, *Senate Executive Document*, 32nd Congress, 2nd Session, No. 55 (1853) :5.

<sup>67</sup> Report of the Commissioner of Patents for 1849, *House of Representatives Executive Document*, 32nd Congress, 2nd Session, Part 2, *Agriculture* (1850), 92.

<sup>68</sup> Leavitt, "Transportation and the Livestock History of the Middle West to 1860," 27-32.

*Thursday, 12th:* Hired help and hauled wool to landing to be shipped to Keokuk. Cold day. Tired.

*Friday, 13th:* . . . Wandered upon the bank of the Father of Waters, waiting for steamer to ship to Keokuk. The De Vernon came up the river in the afternoon so I shipped myself and wool for Keokuk.

*Saturday, 14th:* Weighed and delivered 6,410 lbs. to Connable Smith & Co., amounting to \$1,570.45. The banker at Keokuk asked me to take in payment for my check English sovereigns at one cent more than their actual value as they would pass for \$5.00 in all places west of the Missouri River. I could afford and would afford to speculate. The steamer I was to take was whistling "All Aboard" and in his hurry he passed me ten pieces too much and I thought so at the time, but could not stop, so put the money in a pocket by itself, jumped aboard the steamboat for Quincy. On steamer Lamartine counted money and found mistake.

*Tuesday, 17th:* The agent of the Keokuk banker found us, showed his figures whereby he had made the mistake, and I paid him his money. "No mistakes rectified after leaving the counter" was pasted conspicuously in his bank.<sup>69</sup>

Hauling wool in the spring, in the prairie states, was always a serious problem. The roads were soft and muddy, and access to river transportation was difficult. The distances to be driven from the farms of many sheep owners led to the driving of flocks to river landings in order to be sheared, especially along the Illinois, Ohio, Mississippi, and Missouri rivers.

#### DRIVES WEST AND SOUTH

During the fifties and up to the Civil War, the drives to new country continued. The same year that Dr. Flint and party trailed to California from Illinois (1853), a number of large flocks were also on their way. It was estimated by Butterfield<sup>70</sup> that between seventy-five thousand and one hundred thousand sheep were driven from Michigan, Ohio, Illinois, and Missouri to California in the decade 1851–61. Courage and business enterprise were required to achieve success, but men of that type were readily found in the agricultural pursuits after

the first California gold fever wore off.

The era of the fifties also saw flocks shipped or driven to Mississippi and Texas. In 1852 John W. Stephens, of Vermont, took a small flock of Merinos to Providence, Mississippi, by steamship, driving the sheep overland, northward from New Orleans. By 1854 drives from Missouri and Illinois were being conducted to Texas with a fair degree of regularity. Stephens wrote in 1852:

I think of starting to Texas about the first of September to look at the country, to see what sort of a place it is. My brother-in-law writes from that place as being the greatest sheep country in the world. The objection is that the sheep of Texas get to be too fat. In portions of that country sheep do well through the winter without any feed but what they get themselves. My brother wrote that he had eat(en) as fine mutton there during the winter as he ever saw anywhere in the business, that had not been fed at all.<sup>71</sup>

All through the fifties the interest in Texas grew. The Valley Farmer of St. Louis described it at its peak in the following terms:

There is a sort of mania just now about sheep in Texas. The experiments begun a few years ago by Mr. G. W. Kendall and the success that has finally followed his efforts, after going through all phases of ill luck, losses, and discouragement incident to an enterprise of that kind in a new country on so grand a scale, but which perseverance has at length overcome, has induced many others to establish great sheep farms in that state—a country admirably adapted to that kind of stock. Major William Leland, one of the proprietors of the Metropolitan Hotel in the city of New York, is one of the number who has followed the lead of Mr. Kendall with every prospect of success. There is, besides the fine wool flocks established in Texas, a constant and large importation of coarse wool sheep from Mexico. It is estimated that a fourth of a million of Mexican sheep have crossed the line into Texas since 1859 (probably meaning the first

<sup>69</sup> Flint, "Diary, California to Maine and Return," 19–21.

<sup>70</sup> I. H. Butterfield, Jr., Lansing, Michigan. Letter to Prof. Gordon H. True, University of California, Berkeley, March 14, 1929.

<sup>71</sup> John W. Stephens, Providence, Mississippi. Letter to "George and Adline" in Vermont, July 12, 1852, in possession of L. M. Stephens, Lometa, Texas.

ten months of the year) and the number is constantly increasing. The crossbreds make valuable wool and mutton. The state is not overrun with vicious and worthless dogs. Sheep can be transported from Texas to the large eastern markets with more safety and less waste of flesh, and at less risk to the owner, than cattle. Texas beef is now in all of the important eastern markets.<sup>72</sup>

In the winter of 1856-57, Francis M. Pool<sup>73</sup> drove a large flock of grade Merinos from Illinois and Missouri to Kyle, Texas, just below Austin. It is estimated that forty to fifty thousand sheep from these states were driven into Texas during this decade.<sup>74</sup> One of the last drives before the Civil War was conducted by D. A. A. Nichols<sup>75</sup> who purchased his sheep in Illinois and entered Missouri at Hannibal. His route passed Boonville (about one hundred miles) and Carthage (some two hundred miles farther). From Carthage he continued into Indian Territory about one hundred sixty miles to the Arkansas River and then one hundred eighty to two hundred miles more (according to route used) to the Red River on the Texas boundary. There were three toll bridges en route, the fee being five dollars for flocks of two thousand head or more. Some five rivers—the Mississippi, Missouri, Grand Osage, and Arkansas—had to be ferried, the standard price being a half-cent per head. Flocks usually waded or swam across the minor streams, as well as such rivers as the Canadian and Red.

It was customary to pen the sheep each night as a protection from wolves as well as the weather. In Illinois and Missouri, pens were usually rented at convenient farms, but beyond Carthage this was difficult. Here movable fence was made from sheeting a yard wide mounted on stakes. These stakes were sewed in the corners and in the middle of each side of the pen, to prevent sagging and to hold the sheeting fast. The

pen was rolled for hauling and was set up in octagonal form to prevent crowding in corners. A few drivers used pens made of ropes and stakes, since they were not blown down as easily as the cloth pens, but they tangled badly when rolled.

Food supplies were usually procured before starting and it was not difficult to get water for human use at any point en route. Sometimes it was necessary to leave the trail a short distance, but no water problem existed for the flocks. Equipment consisted of a covered wagon and a team, an extra riding horse or mule, a portable stove, a water keg, a small but weather-resistant tent, and guns with ammunition for hunting and general protection. In addition to the expense of the driver's outfit already detailed, it cost about ten cents per head to drive from Illinois to Texas. The cost was usually met by the wool sheared from the flock. One dog could usually displace one man in driving and watching the sheep.

The majority of drivers went only half way to Texas the first season so as to acclimate the flock to the warmer temperatures, as well as to avoid the weight shrinkage and death losses that took place when the full trip was made in

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<sup>72</sup> *The Valley Farmer*, Vol. 2, 10 (October, 1859) :309.

<sup>73</sup> Francis M. Pool drove a flock of grade Merinos from Illinois and Missouri to Kyle, Texas (below Austin) in 1856-57. A native of the Lawrence district near Charleston, S. C., he emigrated to Texas in the early fifties, traveling by boat from New Orleans to Shreveport. Here he purchased a horse and rode across country to Austin via the sites of modern Dallas and Waco. For several years he operated near Austin, and then moved to San Antonio. He marketed his wool in New Orleans. Interview by author with W. C. Pool (his son), Fort Worth, Texas, March 15, 1939.

<sup>74</sup> W. C. Pool, Interview, March 15, 1939.

<sup>75</sup> D. A. A. Nichols, "A Sheep Drive to Texas," *The Country Gentleman*, 15, '00 (May 3, 1860) : 284.

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one year. Dickson and Nichols wintered in Jasper County, Missouri, the season of 1860-61, and suffered minimum losses while another flock on the trail that completed the trip lost three hundred out of a thousand head. These sheep had cost four dollars per head in Illinois. Another flock of seven hundred head had only one hundred fifty remaining when driven all the way to Texas that same season. Dust was bothersome in the early summer but after August, rains usually made the ground more pleasant for driving. Sheep normally costing around four dollars per head in Illinois sold for eight to ten dollars in Texas.

Feed was cheap in Missouri in the regions where the sheep were wintered. Corn cost twenty-five to thirty cents per bushel in the shock, and the prairie grass required only a minimum amount of supplementing with corn and fodder

to keep the sheep in good condition. The wool sheared from the flock in Missouri in early spring would usually cover all the cost of wintering, as well as labor.<sup>76</sup>

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At the onset of the Civil War the area of heavy sheep production extended from Vermont through New York and Pennsylvania into Ohio and Michigan. Thence it led across Indiana and Kentucky to Illinois and Missouri, and then into Texas, New Mexico, and California. Seventy-two per cent of all sheep in the United States was in this band of twelve states. Vermont and Texas had approximately the same number of sheep, but the westward and southwestward displacement of the industry was in full tide.

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<sup>76</sup> Nichols, *A Sheep Drive to Texas*, 284.

*... Thus was the fabric formed!  
The fair Castilian sheen of staple fine  
Made radiant the cloak—  
Oh, rarest gift, from rare Merino fleece.*

—Leigh Hunt, "The Cloak"

\* 6 \*

## The Merino Wave

THE MOST difficult situation to visualize in reviewing the story of sheep in the United States is the hysterical enthusiasm and speculation that greeted the Spanish Merinos. Hundreds of men in public life who had previously displayed no interest in wool production became frantic propagandists for, and promoters of, the breed. Ambassadors, governors, sea captains, naval and military officers, consuls, and hosts of others participated in the craze. The first decade and a half of the nineteenth century developed no agricultural interest that could rival it, barring the westward migration.

A sheep community was not up to date until it could claim a thousand dollar Merino ram, while several boasted fifteen hundred to twenty-five hundred dollar sires. In 1810 the average price of all Merino rams sold was well above the thousand dollar level.<sup>1</sup> How the finances of farmers who had to skimp and borrow to obtain the necessary funds to "go West" ever stood the strain of high-priced Merinos is difficult to determine a century and a third later. Very few communities in the older states, however, lacked this fine new stock. Families that knew broadcloth only when worn by representatives of state, pulpit, or commerce, were planning on the day when all might be garbed in it for "Sunday best."

Three great waves of speculation

developed—the Spanish Merino boom of 1805 to 1815, the Saxon Merino craze from 1824 to 1832, and the Vermont Merino revival of 1859 to 1867. In each case the markets were overplayed, but in the first and last instances the cessation of a war demand blasted the wool growers' prosperity. Inherently the Merinos possessed the qualifications for the American range, and the westward shift of sheep breeding clinched the argument for the Spanish breed. The development of mutton quality in its American descendants made the permanent occupation of the trans-Missouri country a certainty.

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American interest in the Spanish breeds began in 1785. In that year the "Society for the Promotion of Agriculture" in South Carolina offered a medal for the first flock of Merino sheep to be kept in the state,<sup>2</sup> but evidently the incentive was insufficient. Seven years later a Bostonian, William T. Foster, smuggled a ram and two ewes out of Spain—with the aid of a drover from the Sierra Morena and a fisherman who delivered them to an American vessel (the Bald Eagle, Capt. John Atkins). They reached the United States safely,

<sup>1</sup> Livingston, *An Essay on Sheep*, 184.

<sup>2</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 133.

but soon after Foster's return he was again required to sail for France. The cherished trio of Merinos was presented to a friend, Andrew Craigie of Cambridge. Not realizing the value of their wool nor their potential importance as breeding stock, the latter successively slaughtered all three for mutton and pronounced their flesh delicious. A decade or more later he paid penance, when he bid one thousand dollars to acquire a Merino ram at an auction near Boston.<sup>3</sup>

The next adventure in importation was more successful. When the treaty of Basel between France and Spain was signed in 1795, a secret clause permitted a commission appointed by the French government to select and transfer into France a large flock of Merinos. One of the members of this committee, M. Dupont de Nemours<sup>4</sup> purchased an estate on the Hudson River to which he emigrated in 1799. In partnership with a Parisian banker, M. Delessert, who also owned a country seat on this river, he imported four Merino ram lambs, only one of which survived. This ram, Don Pedro,<sup>5</sup> had cost one thousand dollars and had arrived safely in 1801. The next year he was placed on Delessert's farm near Kingston, where he headed the flock for four years.

At Delessert's dispersion sale in late 1805, he was purchased by an agent of Dupont for sixty dollars and taken to a farm the family had acquired near Wilmington, Delaware. Here E. I. Dupont offered the services of the ram free to neighboring farmers (an opportunity for improvement unrecognized by most), and in 1808 Dupont bought all the half and three-quarter blood offspring of Don Pedro he could purchase. With the natural increase and some other purchases he assembled a flock of fifteen hundred head. A neighbor, Mr. Beaudry, acquired six

hundred head.<sup>6</sup> In 1809-10, E. I. Dupont and Company erected a woolen mill on the Brandywine whose operations were based on the Merino fleeces. By 1815 thousands of Merinos were in the vicinity and Don Pedro's blood had been spread to Pennsylvania, Maryland, and Virginia—in addition to the descendants he had left behind in New York. The progeny of Don Pedro had little effect on the fashionable Merino lines used as a base for the purebred flock registries, but they held a position in eastern commercial production never rivalled.

The Merino trail across the Alleghenies also found its incipiency in 1801. In August of that year Seth Adams of Dorchester, Massachusetts, imported a pair of Merino sheep taken from Spain into France, for which he received a fifty dollar premium that had been offered by the Agricultural Society of Massachusetts. The progeny of these sheep, twenty-five to thirty in number, were taken to Wacatonica (modern Dresden) in the Muskingum Valley in Ohio in 1807, where they exercised a strong effect in improving Ohio and Kentucky stock. Judge Todd of the latter state paid fifteen hundred dollars apiece in 1809 for two sheep from Adams' original flock. Later Adams acted as agent for other flocks, particularly those of Colonel Humphreys and Consul Jarvis, and spread Merino sheep all over the eastern Ohio Valley. Adams retired as a breeder rather early, as he

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<sup>3</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 133.

<sup>4</sup> Dupont de Nemours was the founder of the Dupont family in the United States that has been associated with the manufacture of explosives, plastics, and thousands of other twentieth century chemical and physical products.

<sup>5</sup> Plumb, *Types and Breeds of Farm Animals*, 495. This ram is called there "Don Carlos."

<sup>6</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 134-35.

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was not very successful under frontier conditions.<sup>7</sup> But he continued to handle sheep for others from his headquarters in Zanesville for many years.

#### CHANCELLOR LIVINGSTON

The year 1802 brought two of the greatest early figures of the Merino business into action—Robert R. Livingston,<sup>8</sup> who provided most of the historical and practical information on Merino sheep first available in the English language, and Colonel David Humphreys,<sup>9</sup> whose flocks lay at the foundation of the strains from which the American Merino developed. Both occupied important niches in other fields of American history.

For many years it had been believed that Merino sheep could not be raised outside of Spain because the annual migrations were essential for the production of fine wool. However, Livingston discovered that both France and Sweden were equaling or excelling the Spanish effort and decided that a similar opportunity existed in the United States. He therefore procured from the French National Flock at Chalons two of the best rams and two of the best ewes obtainable in the entire country. He sent them back by his servant to New York where they landed in the spring of 1802.

Before Livingston returned to this country in 1805, only two lambs had been grown from his sheep and there was little interest in the breed. He promptly attacked the problem of their promotion, submitting two essays on the subject to the Society for the Promotion of Useful Arts in New York. These aroused enough interest that he was called upon continuously for information, so he prepared and published his famous *Essay on Sheep*. This was ordered printed in 1809 by the New York State legislature and became the

source of all fundamental information on sheep breeding and production in this country.

Another publicity venture was started in 1808 when Livingston put forth a statement on the shearing of a flock of his sheep, including six purebred Merinos, twenty-four three-quarter bred, thirty half-breds and seventeen common sheep of good quality. These classes averaged per head approximately five and one-half pounds, four and two-fifths pounds, four and two-thirds pounds, and three and two-thirds pounds of unwashed wool. The fine wool brought \$1.25 per pound; the crosses, 63 cents; and the common, 31 cents. Moreover, these common sheep were far superior to the average sheep of the country which usually sheared two to two and a half pounds. These results stimulated interest in the new breed, and Livingston started a further series of tests, supplemented by public shearings and sales, that disseminated Merinos quite widely in the state of New York and in western Massachusetts and Connecticut. Elkanah Watson calculated that there were fifteen hundred full-blood and mixed Merinos in Berkshire County, Massachusetts, in 1810,<sup>10</sup> and a local census of 1815 recorded eight thousand sheep within a mile of Pittsfield, of which 90 per cent were pure or mixed Merinos. Livingston's death in 1813 deprived the breed of the most effective promoter any American industry had had up to that date.

#### COLONEL HUMPHREYS

Colonel David Humphreys (aide and chief of staff for General Washington)

<sup>7</sup> Stephen Powers, *The American Merino*, 11.

<sup>8</sup> See Biographical Appendix, Robert R. Livingston.

<sup>9</sup> See Biographical Appendix, Colonel David Humphreys.

<sup>10</sup> Carman, Heath, and Minto, *Special Report on Sheep*, quotes Watson, 145.

approached the problem of Merino sheep production from the direct standpoint, importing flocks and breeding from them. He did not propagandize for Merinos like Livingston, but he did make to the Massachusetts Society for Promoting Agriculture several statements which were filled with information and prudent advice. His own story concerning his first importation of Merinos is charged with interest:

Convinced that this race of sheep . . . might be introduced with great benefit to our country, I contracted with a person of the most respectable character, to deliver to me, at Lisbon . . . 25 rams and 75 ewes, from one to two years old. They were conducted, with proper passports, across the country of Portugal by three Spanish shepherds, and escorted by a small guard of Portuguese soldiers. On the 10th of April last, they were embarked in the Tagus, on board the ship *Perseverance*, of 250 tons, Caleb Coggeshall, Master. In about fifty days, 21 rams and 70 ewes were landed at Derby, Conn., they having been shifted in New York on board of a sloop destined to that river. The nine which died were principally killed in consequence of bruises received by the violent rolling of the vessel on the Banks of Newfoundland. To prevent that and other disasters, as far as might be, by prudent precautions, the whole space between decks was divided into four pens of 25 sheep each, the rams having been kept separate in one, and the least vigorous ewes in another, with convenient racks, troughs, and tubs for feeding them and watering them. The change from the open air to close confinement, and from green to dry food, occasioned them to suffer less inconvenience than I apprehended. They ate more than a pound of English hay each, together with about a gill of Indian corn, or an equivalent of bran, with salt occasionally; and drank water at the rate of nearly a quart a day. This was double the ration which the Spanish shepherds calculated . . . Some of the sheep appeared to have so voracious an appetite that it was deemed expedient to limit the quantity of forage. . . . A few which would not eat Indian corn, probably because their teeth had become loose, were debarked very weak, and others much fatigued. All soon recovered, by being permitted to feed freely in hilly pastures in the day, and put under cover at night, until they could be gradually accustomed to remain altogether in the field without danger to their health.<sup>11</sup>

Colonel Humphreys never announced the flocks from which his importation

was drawn and many speculations were rife as to their origin. On July 8, 1812, though, he certified that they were from Estremadura and of the purest and best race in Spain.<sup>12</sup> The blood of his importation was widely and rapidly disseminated, and wrought great improvement in the flocks of that day. Records of them are found in Ohio through the efforts of Seth Adams, Thomas Rotch, and William R. Dickinson; in Virginia through the activity of John Scott, William F. Grimes, A. B. Hooe, and General John Mason; in New Jersey through James Caldwell; in western New York through James Wadsworth and Aaron Cleveland; in Pennsylvania through John Renfrew and John Hatich; and in Kentucky, through Judge Todd and Colonel James Trotter. While this distribution affected the commercial flocks of the foregoing districts most favorably, some of the best flocks of Vermont, from which the American Merino descended, also traced directly to the Humphreys' importation.

Colonel Humphreys was accustomed to give a certificate to each purchaser of one of his sheep. Before Thomas Rotch started for Ohio he procured a Humphreys' ram and with it a certificate reading as follows:

This may certify all whom it may concern that Thomas Rotch of Hartford in Hartford County hath purchased and received one full blooded pure Merino Ram, derived from the full blooded pure Merino Sheep imported by Col. Humphreys into this country from Spain.

Witness (*sic*) my hand at Renomon Falls in Derby this 17th day of August, 1808.

(signed) John Humphreys Jun'r  
Agent for Col. D. Humphreys<sup>13</sup>

<sup>11</sup> Col. David Humphreys. Statement before the Massachusetts Society for Promoting Agriculture, August 25, 1802.

<sup>12</sup> Carman, Heath, and Minto, *Special Report on Sheep*, quotes Humphreys, 161.

<sup>13</sup> Certificate in the archives of the Ohio State Archaeological and Historical Society, Columbus, Ohio.

In the lower left hand corner appeared a picture of a Merino sheep.

One of the advertising points for American-bred Merinos in early days was found in the inauguration clothes of President James Madison. His coat was made from wool from Colonel Humphreys' flocks of Spanish descent, and his waistcoat and "small-clothes" from Livingston's Clermont flock of French descent.

Back of Livingston's and Humphreys' efforts for sheep improvement can be seen the influence and inspiration of General Washington. Both men were in close touch with him, both participated in his love of an orderly and improved agriculture, and both felt the responsibility inherent in the opportunities which he secured for them. Livingston was minister to France, Colonel Humphreys to Spain. No contact from Washington to sheep improvement could have been more direct; no better choice, from the viewpoint of history, could have been made in persons selected. The retrospect of the years assigns Washington the keystone position in the arch of American sheep husbandry.

#### CONSUL JARVIS

Livingston brought principles and tradition to American sheep husbandry and Humphreys brought quality blood. Consul Jarvis<sup>14</sup> brought the business judgment and the energy that introduced a volume of Merinos to our shores. His first inspiration was found in a glimpse of Colonel Humphreys' importation, but it was four years before he found a Spanish friend with whom he could work. His efforts of 1806 failed and so did his first attempt in 1809. Then Napoleon's invasion of Spain and the internal Spanish dissensions gave him the opportunity for which he was looking. In 1809 and 1810 he exported in different

shipments to the United States a total of approximately four thousand head,<sup>15</sup> of which fifteen hundred arrived in New York, one thousand in Boston and Newburyport, and the remainder in Philadelphia, Baltimore, Alexandria, Richmond, and Norfolk. All of the sheep he purchased were of superior breeding and included Paulars, Aguirres, Escurials, Negrettis, and Montarcos.

His first shipment to Boston consisted of one hundred Merinos, mostly rams, and was consigned to Cornelius Coolidge and Company.<sup>16</sup> They came by the ship Edward, and landed April 13, 1810. Coolidge received the premium of \$250, offered by the Massachusetts Society for Promoting Agriculture, for the first ten ewes imported from Spain. Eleven of the rams sold for \$10,902.26, and eleven more were leased for \$4,440. These rams were all Escurials. Jarvis' second shipment went to Alexandria, Virginia, and was distributed among Thomas Jefferson and associates of the Columbia Agricultural Society, Georgetown, D. C. These were landed May 5, 1810, three weeks after the Boston shipment. While Jarvis was fundamentally interested in establishing a breeding flock on his farm at Wethersfield, Vermont, he once wrote that he wished "to distribute these valuable animals to every state which would be likely to profit by their acquisition."<sup>17</sup>

In 1811, Jarvis returned to the United States and settled four hundred sheep of these strains on his Wethersfield estate. He brought with him some Paular shepherds and for a few years kept each of the bloodlines separate, but

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<sup>14</sup> See Biographical Appendix, Consul William Jarvis.

<sup>15</sup> Plumb, *Types and Breeds of Farm Animals*, 496-97.

<sup>16</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 173-74.

<sup>17</sup> Plumb, *Types and Breeds of Farm Animals*, quotes Jarvis, 497.

in 1816 and 1817, when the market failed, he mixed them together and bred them thus thereafter. Jarvis once wrote that from 1811 to 1826 his average weight of wool (washed) was three pounds, fourteen ounces to four pounds, two ounces—varying according to keep. The weight of the wool from the bucks was from five and a quarter to six and a half pounds, "all washed on the sheep's back." In 1826 Jarvis committed the "unforgivable sin" of introducing Saxon blood, when that mania was sweeping the country, but some of his Paulars which he had sold into other hands enabled him partially to restore his reputation. His flock continued to be a great center of distribution, except for a few Merino breeders, until his death, October 21, 1859, just three months short of his ninetieth year.

#### THE MERINO CRAZE

The publicity accompanying these importations started a tremendous price boom. Both Livingston and Humphreys sold rams at prices equaling Coolidge, and Humphreys was paid three thousand dollars apiece for two pairs, a ram and ewe each. Not all the big prices quoted were actually transformed into cash, however. A letter from Levi Miller to Thomas Rotch in 1810 makes some interesting comments:

The demand for Merino Rams is truly astonishing. I have sold one of my ram lambs, born since I was at thy house, for \$1500, and last week I gave a person the refusal of my Queen Bess and her ram lamb at \$3,500 for three days until he should raise the money, which he has failed of. They are yet for sale, the lamb would in a minute bring me \$1,500 but he is near-sighted, which I presume will not injure him, but on this account I ask only \$1,000 for him and \$2,500 for his dam. For my three-quarter blood ewes I ask from \$150 to \$250, and for the rams \$50 to \$75. . . . All the foreign blood in my flock consisting of 145 sheep has cost me \$380 and now I have not the least doubt but if I were to sell at vendue it would bring \$15,000. How long this will last I cannot imagine. My only concern is that the speculation will be spoiled by impostures, many are already practiced.<sup>19</sup>

Over ten thousand head arrived in the United States in 1810, and by the mid-summer of 1811, the number had nearly doubled, totaling 19,651 Merinos in the sixteen months between April 1, 1810, and August 1, 1811.<sup>20</sup> Other importers besides Jarvis were Cochran Johnson, Goold Brothers, and Charles O'Neil who imported from Lisbon, and R. W. Meade from Cadiz.

The rushing demand did not pass without some challenge as to the purity of blood. Miller's fears were realized when a few sea captains who purchased sheep for mutton rations en route were charged with masquerading these animals as Merinos. Also the increase in numbers broke ram prices to levels ranging from one to three hundred dollars.

The hostile attitude of England in the latter part of 1811, and the outbreak of war in 1812, furnished just the setting necessary for a price boom. This boom affected the value of the wool rather than the breeding stock. Both growers and buyers made a point of the Merino wool, and the interest in locating pure and grade Merinos became intense in some of the states. In New Jersey, for example, in 1814, out of 285,000 sheep reported to the state authorities, 3,800 were pure Merinos and 25,800 were grades.<sup>21</sup>

Demand for Merinos carried on well until the close of the war, and then the general drop in the market for woolens,

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<sup>19</sup> Levi Miller. Letter from Poughkeepsie to Thomas Rotch, Hartford, Connecticut, May, 1810, in the archives of the Ohio State Archaeological and Historical Society, Columbus. Rotch (sometimes spelled Roach) was a Quaker who crossed the Alleghenies into Ohio, bringing 410 Merinos, full blood and part blood, to Stark County. Up to his death in 1823 he rivalled Seth Adams and W. R. Dickinson as a leader in the Ohio Merino business.

<sup>20</sup> Plumb, *Types and Breeds of Farm Animals*, 497.

<sup>21</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 426.

the influx of British manufactures, and the national financial difficulties smashed the Merino boom. In 1815 fine wool in Boston was bringing as much as \$1.50 per pound; and in 1817 it was 35 to 40 cents. With it the price of Merinos fell. Farmers exhibited as much disgust for the breed as they had previously displayed enthusiasm. Half-blood stock sold to the butchers for \$1.25 per head and in some cases rams costing three hundred dollars to five hundred dollars were sacrificed for prices of \$1.25 to \$1.50 each. Men who refused to sell to the butchers sometimes disposed of their stock for slightly better prices to emigrants headed west. Much of the Merino industry had to be adjusted once more to the position of a farm flock, kept for household woolens.

#### DELICACY OF EARLY MERINOS

Life on the American frontier was not easy for the Spanish sheep. They were broken into small flocks, confined more, and subjected to a damp climate that chilled their young lambs and promoted foot rot. Furthermore, soft grains and grasses of Ohio and Kentucky were not readily substituted for the hard-curing pastures of Castile or Extremadura. Both bodily and sexual maturity seemed to be delayed. Miller wrote:

I am now convinced that these sheep are not by Nature designed to breed the first year, for neither my full-blood or three-quarter blood are like to have lambs, notwithstanding they are very big yearling sheep, and of six half-blood yearling ewes that have lambed, only two lambs are now alive.<sup>21</sup>

The young lambs particularly seemed to lack hardiness and vitality. Arvin Wales, an excellent American shepherd and friend of Thomas Rotch, who handled part of Rotch's flock at Cross Creek, Ohio, wrote in 1811:

The sheep here that bear lambs do very indifferent. There has twelve lambs died. I have had

sad times; sheep won't own their lambs and lambs don't know their mothers, and they were very uneasy at first in confining them in their cote. The hay in this neighborhood all being cut after harvest, it being timothy and fully ripe, is not very succulent and good for milk. We have boiled oats and Indian meal into pudding, but still the poorest of the ewes would dry up their milk, and the best would not yield much. Having an opportunity yesterday I improved it in getting out fifty bushels of bran.<sup>22</sup>

On January 17, 1812, Wales again addressed Rotch:

The sheep have eaten a ton (of hay) in five days and have (been) fed a hundred bushels of oats, fifty of corn, fifty of bran, and ten or twelve of buckwheat, and with all this feed the ewes that have lambs grow poor and dry as to milk. I believe it to be principally owing to their being kept in too crowded a situation, if the lambs are let loose this extreme weather they chill them and they die; if they are shut up, they smother and die; there are about seventy living which are about two-thirds of the number yeaned.<sup>23</sup>

Six weeks later, further trouble appeared:

The storm of Sunday evening was very hard on the lambs, one died, and a number more of the weakest ones almost died, the water came in so that the sheep cote was quite wet, though littered with thirty bundles of straw. We have had one of last year's lambs that could not yean after laying twenty-four hours in the greatest pain. Mrs. Hobson relieved her by extricating the lamb which was dead. She had a good appetite until the storm—she took cold and had a high fever, no appetite and very weak. . . . This cold weather is as severe on the lambs as any we have had this winter, two have died this day.<sup>24</sup>

Gradually breeders learned that the heavier fleeced ewes seemed to possess weaker reproductive and lactating systems, and their lambs needed much extra attention when dropped. One of Ohio's best known breeders of the latter

<sup>21</sup> Miller. Letter to Thomas Rotch, May, 1810.

<sup>22</sup> Arvin Wales. Letter from Cross Creek, Ohio, to Thomas Rotch at Sippo, Stark County, Ohio, November 11, 1811, in library of the Ohio State Archaeological and Historical Society, Columbus.

<sup>23</sup> Arvin Wales. Letter to Thomas Rotch, January 17, 1812, in library of the Ohio State Archaeological and Historical Society, Columbus.

<sup>24</sup> Arvin Wales. Letter to Thomas Rotch, February 25, 1812, in library of the Ohio State Archaeological and Historical Society, Columbus.

part of the nineteenth century, C. S. Chapman, wrote that previous to 1880 he and his father had bred heavy folded Merinos, having ewes shearing eighteen to twenty pound fleeces, and using rams shearing thirty to thirty-six pound fleeces. They believed they had intensified selection so strongly for heavy shearing that they could obtain only a 50 to 60 per cent lamb crop. He said the lambs "would be so feeble when dropped that in a majority of cases you could not tell for twenty-four hours whether they had enough vitality to live."<sup>25</sup>

That American breeders were able to rescue this breed of sheep from such a difficulty was a tribute to their skill. Just how they managed to do so can never be proved, as there was a small school of breeders, both in Merino sheep and Shorthorn cattle during the first third of the last century, that welcomed slow reproductive rates and boasted of the values created by the resultant scarcity.

#### LEASING MERINO FLOCKS

The demand for Merino flocks and fleeces stimulated a variety of desires among those unable to purchase breeding stock. In some cases valuable rams, ewes, or lambs that had strayed from their pastures were permitted to join flocks owned by emigrants headed west, or were actually stolen; but an honest craving could be satisfied by wintering a small flock for an established breeder. Most of the Merino promoters who crossed the Alleghenies between 1806 and 1815 found it necessary to secure additional shelter and feed through the winter, from the time outdoor grazing became unproductive until after lambing and shearing the next spring. During the first years that breeders were in the newly opened country, such winter keep was very expensive. Feedstuffs were high, the breeders were inexperienced,

and disease and death losses were excessive. Yet by 1820 Ohio not only had numerous flocks of Merinos, but there were a few flocks in Indiana and Illinois.<sup>26</sup>

In the winter of 1811-12, Thomas Rotch sent two hundred sheep to Joseph L. Hobson for care and keep, and when the wages of a shepherd's helper to nurse young lambs, the shepherd's board, and the cost of fire (heat) were included, the winter bill was \$550, or \$2.75 per head.<sup>27</sup> Incidentally, the cost of driving this stock from Connecticut, feeding the flock en route, buying feed for those wintered at Sippo, setting up the minimum equipment at the latter place, and paying the wages of the help, totaled \$2,228 in addition to the amount paid Hobson. The sheep that were gathered for the drive numbered 410 head.

Soon Rotch adopted the so-called "one-sixth" contract, which was widely used by all Merino breeders in eastern Ohio up to 1815. The following contract was signed at Mt. Pleasant, Jefferson County, Ohio, July 4, 1813, by Josiah Bundy for twenty-six sheep, Jesse Parker for sixty-five sheep, and Robert Richie for twenty-six sheep. In addition, both Bundy and Richie took some on a cash contract as well:

We the following signers agree to the following Instrument of writing and bind ourselves to abide thereby as terms stipulated for the taking, keeping, and feeding sheep, washing, shearing, and caring for them for their health and benefit, also the same of their increase, all for four years from the receipt of the same. The first stock of ewes to be furnished agreeable to the grades

<sup>25</sup> Plumb, *Types and Breeds of Farm Animals*, quotes C. S. Chapman, 505.

<sup>26</sup> M. Faux, *Memorable Days in America; Being a Journal of a Tour to the United States, Part I* (Vol. II, *Early Western Travels*, edited by R. G. Thwaites), 260.

<sup>27</sup> Thomas Rotch, *Invoice of Sheep brought from the Atlantic States to Ohio, and Sheep Account, 1811-12*, in the archives of the Ohio State Archaeological and Historical Society, Columbus.

described in each receipt—their wool to be property of Tho's Rotch subject to his order free from expense. The first stock of ewes to be always kept up to the same number from the increase of the same degree; equitable division of the wool, washed and sheared in proportion of five-sixths of the increase to be with the before-mentioned wool of the first stock. The Receiver and keeper of the before-mentioned stock, as a full adequate compensation for all trouble and expense, is to hold an interest in all the increase and to receive his dividend in one-sixth of the undivided increase at the expiration of said terms and one-sixth of the wool annually that are not in the place of the regular stock. Thomas Rotch is to furnish a full blood Merino ram for the use of the stock and for the use of Receiver's ewes in which case he shall be entitled to a fair and equitable division of one-half of the increase from said ewes.

Mount Pleasant, 7th month, 4th day  
Jefferson County, Ohio 1813.

Received of Thomas Rotch of Kendal, Stark Co.,  
 7 full blood Merino Ewes  
 3  $\frac{7}{8}$  blood Merino Ewes  
 9  $\frac{3}{4}$  blood Merino Ewes  
 6  $\frac{1}{2}$  blood Merino Ewes  
 1 full blood Merino Ram

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All agreeable to the true interest and meaning of its before-written stipulation which I have read and duly considered, and do obligate myself, my heirs and assigns faithfully to observe and perform.

*Josiah Bundy*<sup>28</sup>

As prices went down, following the signing of peace with Great Britain, the one-sixth provision proved inadequate compensation. Rotch discussed negotiations<sup>29</sup> with N. P. Atkinson of Wheeling in which the latter would take the flock on a three year contract, getting half the wool each year and at the end of three years returning all of the original flock still alive and two-thirds of the increase, including enough "full-blooded sheep as to equal in number half the loss." Rotch found this to be the most favorable contract possible, and at the end of the year sent 103 sheep to Atkinson in charge of Richard Carter. His instructions to Carter were:

I deliver into thy care and charge, 88 full blood Merino Ewes, 2 full blood Merino Bucks,

1 full blood Merino Wether, 12 three-quarter blood Merino Ewes—making the whole 103 sheep which thou art to drive with the aid furnished thee as near fifteen miles per day as circumstances will admit, until thou may arrive at N. P. Atkinson's place near Wheeling. Observing particularly on thy approach toward River Bottoms the most discreet precaution against the sheep scattering and feeding upon them or upon any grass near stagnant waters, and at night secure them within a proper enclosure near some dwelling house on account of wolves and dogs, and then feed them with Sheaved Oats, when to be obtained, giving them about 125 sheaves at night, and less when fed a little before night upon grass. Upon the delivery of the sheep to N. P. Atkinson request him to sign the receipt herein enclosed, which when signed thou art to keep until thou may have suitable opportunity to send to me.<sup>30</sup>

During the winter of 1819–20 Levi Miller of New Garden was paid one dollar per head for caring for a flock of Rotch's sheep, about ninety-three head. Dr. Thomas Grissel kept a flock of fifty-one sheep, also belonging to Rotch for the same price. Gradually the figure for winter care for Merino sheep and for a year's care for common sheep came to settle at this amount. However, up to his death in 1823 Rotch also executed a four-year contract, calling for half the wool to be delivered at his woolen factory in Kendal and "at the expiration of the said term of four years. . . . (to) return the same number of ewes received of equal good quality and one equitable half of all the rest of the increased stock for them."

#### THE SAXON BOOM

By the autumn of 1820, the worst of the hard times resulting from the war had passed and the American woolen manufacturers who survived were once

<sup>28</sup> Contract in archives of the Ohio State Archaeological and Historical Society, Columbus.

<sup>29</sup> Thomas Rotch. Letter from Kendal, Ohio, to his nephew, Joseph Barker, New York, August 7, 1812.

<sup>30</sup> Thomas Rotch. Instructions preserved in archives of the Ohio State Archaeological and Historical Society.

more bidding in the fine wool market. During four years conditions continued to improve slowly, with increasing amounts of raw wool being imported. The manufacturers had been importing for a number of years small amounts of the superfine wools from Saxony, and the tariff barrier of 1824 encouraged the wool grower to turn his attention to the Saxon breed. Those who had suffered from the Spanish Merino boom seemed to feel that they might recoup their losses by growing the finest wool possible. The answer, they felt, was found in the Saxon Merino.

In 1765, at the close of the Seven Years War, the Elector of Saxony had secured from the Count Negretti in Spain<sup>31</sup> ninety-two rams and one hundred twenty-eight ewes. Youatt reports<sup>32</sup> that these Merinos did not degenerate in Saxony and the best breed of the native Saxon sheep was materially improved by the cross. The most superior individuals developed a wool fiber much finer and more serrated than the Spanish progenitor, and exaggerated attention was paid to extreme quality. This practice soon resulted in decreased constitutional vigor and a lighter clip, until it was the least hardy of all fine wooled breeds. On the other hand, its conformation was smoother, it was comparatively free from folds, and the broadcloth made from its fleece was a fabric of striking beauty. To make matters more disturbing, breeders found that limited rations resulted in finer filaments than normal or full rations, and the weakness of the stock was further encouraged by restricted nourishment.

However, the demand for Saxon wool was strong. In 1818 its price was between seventy-five and eighty cents per pound—three times that of common wool and double the price of Merino fleece. Accordingly, the American manufacturers actively encouraged the

breeders to purchase animals of the Saxon breed. A few such were imported in 1822 and 1823, but the sheep began to arrive in large numbers in 1824. Seventy-seven head were landed in Boston in charge of an experienced German shepherd. They were sold at Brighton, but many of them were of inferior quality and not pure bloods. In 1827 an importation of high quality Saxons was taken by Henry D. Grove into Washington County, New York, north of Albany between the Hudson River and the Vermont state line. These sheared on the average two and one-quarter pounds of wool "well washed on the sheep's back."<sup>33</sup> Some of them were crossed to Merinos and during seven years the lightest average for the entire flock was three pounds in 1829 and the heaviest was three and three-quarters pounds in 1831. The average for the period was three pounds five ounces. Mr. Grove established a second flock in Ohio and, when they were dispersed at his death in 1844, the New York flock averaged seven dollars per head and the Ohio flock nine dollars per head.

Unfortunately, in the late twenties and early thirties some gross frauds were practiced in Saxon importations. Many mixed bloods were sold as purebred, and German and American speculators unloaded a large number of "purebred scrubs" on American purchasers.<sup>34</sup> When the farmers' expectations from the tariff were not realized in 1826, one shipment of low grade

<sup>31</sup> Plumb, *Types and Breeds of Farm Animals*, 493.

<sup>32</sup> Youatt, *Sheep, Their Breeds, Management, and Diseases*, 49.

<sup>33</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 355.

<sup>34</sup> Connor, "A Brief History of the Sheep Industry of the United States," 107.

Saxons averaged only \$18.64 per head (the German shippers losing three thousand dollars on the venture), though a year and a half previously a good shipment had averaged approximately \$159 with a top price of \$465 for a ram and \$235 for a ewe. A total of 3,400 head was brought in between 1824 and 1828, after which importations practically ceased.

One instance of sheer misfortune affected the Saxon boom. A financial panic in England in 1826, following a period of inflation, forced British woolen manufacturers to dispose of their goods at any price obtainable, and America proved the most convenient dumping ground. A large proportion of the British product was sold in this country below cost. American manufacturers who specialized in the finer woolens, especially from Saxons and best Merinos, suffered most, and fine wools dropped more than a fourth in value.

For two years conditions were chaotic, then the tariff of 1828 began to take effect. Between five and six hundred Saxon sheep were imported and numbers of fine wool growers crossed them with Merinos. In fact, only the Vermont breeders seemed interested in keeping their Merinos pure. Saxon wool held a strong margin in price over Merino for the next fifteen years, though Merino blood was used to increase the weight of the average clip. Finally the progress of the American Merino breeders became so apparent that the Saxon demand ended in the late forties.

Walker writes:

The main objection raised to the Saxony was its weak constitution and light weight of fleece. I believe that the statement often made, that few, if any, of the best Saxon sheep were ever imported to the United States, is correct. The Tasmanian sheep had a Saxony foundation as did the fine wool type Merino of the New England and Gouldborn sections of New South Wales, as well as the Warwick district of Queens-

land. I have inspected flocks in these sections that are superior to any American Merinos, and the claim is that they are pure Saxony.<sup>25</sup> . . . It would naturally follow that in selecting purely for fiber a certain percent would fall into the weak constitutional class and, as inbreeding was extensively practiced, this inheritance factor would be intensified. . . .

#### THE "AMERICAN MERINO"

By the middle of the nineteenth century the American breeders had modified the Spanish Merino sufficiently that they believed they had a new breed, and the Saxony lost favor. Certainly the imported Spanish Merinos took on new qualities. The size was increased in a half century, so that best rams weighed fifty to seventy-five pounds heavier and ewes averaged twenty pounds more. Fleece yields also increased. The Merino introduced before 1810 averaged around three pounds of fleece with five or six pounds as a maximum. By the Civil War, ewes were averaging eight pounds per fleece and many ten to twelve pound fleeces were produced. Finally, in the two decades after the war, several rams were bred that sheared thirty to thirty-five pound fleeces. The Vermont Merino Register tabulated thirty-six rams over three years old that averaged thirty-one pounds one ounce in shorn fleeces, while the heaviest weighed thirty-seven pounds three ounces. The all-time record was forty-four pounds three ounces.

Two principal strains of Merinos were developed, the Atwood and the Pular. Stephen Atwood of Woodbury, Connecticut, grew up in the fine wool business. In 1806-07 he was apprenticed to a breeder of pure Merinos, Younglove Cutler, who had obtained his foundation from Colonel Humphreys. When Atwood's contract was finished, he purchased a ewe from Mr. Cutler and offered to work another year to obtain a second

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<sup>25</sup>J. B. Walker, Gambier, Ohio. Letter to author, August 22, 1941.

one. By 1813 he was able to pay \$120 for a ewe (according to some records apparently bought from Humphreys, to others from John Riggs), and bred her to a ram of Humphreys' strain. In 1819 he bought five ewe lambs and, with the \$120 ewe, laid the foundation for his flock.

Considerable discussion<sup>36</sup> has developed concerning the Atwood foundation due to discrepancies in the records, but it is presumed to include both Infantado and Paular strains. Before he had gone far he had used so much Humphreys blood in the rams that he had the highest proportion of Humphreys breeding of any flock in the United States. Until 1838 he clung exclusively to those bloodlines but then could no longer find rams of pure Humphreys descent. He therefore started breeding his own herd sires, and continued until his death.

During his half century in the business, Atwood increased the average weight of fleece in his ewes about three pounds, so that they sheared slightly over seven pounds apiece. His flock was handled on a small farm and his numbers were never large, but he "bred it so pure" that "the highest warrant that can be given any sheep is that it is a straight Atwood."<sup>37</sup> His first fleece, shorn in June, 1814, was three pounds nine ounces, but in June, 1857, one of his rams of the same blood sheared nineteen pounds eleven ounces, and the next year in the hands of another owner it sheared thirty-two pounds. Atwood's care in selection and matings, and in feeding and maintaining his sheep, was notable. He handled all of his flocks in the open and developed a much greater degree of hardiness than most of the contemporaneous breeders and growers.

The Paular strain of American Merinos was perhaps not Paular at all, as it was quite largely based on the Humphreys importation, the blood lines

of which were never identified except by appearance. It reached its greatest development in the hands of Edwin Hammond of Middlebury, Vermont, although much credit should be given Charles Rich of Shoreham, Vermont, who started breeding in 1823; his sons, John T. and Charles Rich, who carried on the flock; and John T.'s sons, J. T. and Virtulan, who maintained the family's prestige. Still other important flocks were in the hands of Tyler Stickney of Stickney, and Henry T. Cutts of Orwell, both in Addison County.

Hammond was the man who really converted the Spanish Merino into the American Merino. He developed three lines of breeding in his flock—the dark colored, or Queen line, the intermediate, and the light colored line. All of his best show sheep were produced by crossing these lines. Hammond started breeding in 1844 and continued until 1870. His first ram of importance, "Old Black," was purchased from Atwood in 1849 and lived to be nineteen years old. He was described by Dr. Henry Randall as being "long, tall, flat-ribbed, long in neck and head, strong boned, a little roach-backed, deep-chested, moderately wrinkled; his wool was about an inch and a half long, of medium thickness, extremely yolk and dark-colored externally, face a little bare, and not much wool on the shanks. He did not possess a very strong constitution."<sup>38</sup> No one knows how long he would have lived if he had been so fortunate as to "possess a very strong constitution." "Old Black" weighed 135 pounds and sheared about fourteen pounds annually of unwashed wool.

<sup>36</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 257.

<sup>37</sup> Powers, *The American Merino*, 15.

<sup>38</sup> Powers, *The American Merino*, quotes Dr. Henry S. Randall, 17.

Hammond's first famous ram of his own breeding was dropped in 1849, the ram "Wooster," that weighed 105 pounds at maturity and sheared nineteen and one-fourth pounds of unwashed fleece. Of high virility, he served three hundred ewes the season that he was a yearling. He marked the first step in the direction Hammond was heading, being very compact and short-legged, with a short, broad head and a short neck. He was quite wrinkly and had a thick, dense fleece some two inches long. Hammond's next step in advance was "Old Wrinkly," lambed in 1853, that weighed 130 pounds and sheared twenty-three pounds. "Sweepstakes," lambed in 1856, weighed 150 pounds and sheared twenty-seven pounds. He was the product of Hammond's three lines of breeding and yielded more scoured wool in one fleece than any other ram Hammond ever owned. "Sweepstakes" was really the first American Merino. He increased the average weight of rams among his progeny about 20 per cent over the usual Merino weights, increased the width of body one to two inches, reduced the total length of the animal about eighteen inches, and the length of the neck about twelve inches, and increased the weight of fleece about seven and one-half pounds per head on rams and four pounds on ewes. Spanish Merinos, when introduced, sheared 6 to 8 per cent of their body weight, but by 1844 they were yielding 15 per cent and Hammond's celebrated ram of 1861 was named "Twenty-One Per Cent" for shearing that proportion.

For a number of years American breeders paid a great deal of attention to the relation of live weight to fleece weight. Vermont records show that in 1812 the best rams sheared about 6 per cent of their body weight; in 1844, about 15 per cent; in 1865, about 21 per cent; and in 1880, about 26 per cent. To the Paris Exposition of 1876, seventy-eight

Vermont fleeces were sent that averaged 22 per cent of live weight. The best thirty averaged 25.2 per cent; the best six, 30.1 per cent; and the best single, 36.6 per cent. All of these excessive percentages were secured without deterioration of fiber.

In 1882 a public shearing was conducted in Middlebury, Vermont, in which fifty-four rams and ewes averaged 23.3 per cent of unwashed wool. Many of these came from bloodlines that were notorious for their weak constitutions and low reproductive power. Furthermore, the majority of breeders had overemphasized yolk in the fleece, and the heavy yields of unwashed wool were not being reflected in weight of scoured fiber. Many fine fleeces were reported to yield only 12.5 per cent of clean wool,<sup>39</sup> and breeders began to re-examine the value of the heavy weights of unscoured fleece, in comparison with the low fertility and the necessary pampering to preserve the weak-constitutioned animals. Too many rams showed a lemon colored or greenish yolk that clotted easily and indicated low vigor and lower virility. By the mid-eighties breeders had become convinced that their selection had gone too far, since the most wrinkly, heavy yolked types found no favor with the farmers on account of their delicacy.

This brought about the development of two new varieties in the Merino flocks, the so-called *B* and *C* types. The complete wrinkly, or *A* type, which was first choice in improving the American Merino, was found to develop too much unevenness of fiber. At the bottom of each fold, the wool became short, sweaty, and fuzzy, and lacked the elasticity, uniformity, and general vigor found in the fibers of the smoother-skinned sheep. The *B* type had a light fold in the lower thigh and at the neck a fold superimposed

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<sup>39</sup> Powers, *The American Merino*, 19-20.

about a heavy collar over the brisket. The *C* type ideally had no folds at all and was usually hornless, although some rams were horned.

The breeders of Vermont, western New York, northeastern Ohio, and southern Michigan carried the development of folds or wrinkles in the Merino sheep to a greater degree than did those of Pennsylvania, West Virginia, and the remainder of Ohio. Two definite objections to the wrinkles developed. Shearing was more difficult—Powers reports that a good average shearer frequently spent nearly half a day in getting the fleece off a wrinkly ram and it often cost as much as a dollar to get all the wool off one.<sup>40</sup> Where flocks were kept in the open, the wool between the wrinkles, and even the skin, became "parboiled" in hot weather and a quantity of rancid yolk would gather that furnished a breeding medium for flies and maggots. Wrinkly sheep were also discounted by feeder and butcher buyers on the grounds that they were slow to fatten and mature, and produced a "sheepy" mutton. Some of the eastern markets christened wrinkly wethers "leather hides" and enforced a price penalty of a half to one cent a pound on wrinkly sheep.

The first breeds to develop the *B* and *C* types were the different varieties of Delaines. These Delaines traced to two sources, the Humphreys importation of 1802 and the R. W. Meade importation about 1820. In general the Delaines were developed by careful selection, with emphasis on freedom from folds and improved mutton character. More attention was paid to length of fiber, hardiness, and, in some strains, the polled character, than had been given to the American Merinos. "C type Merinos are in fact true Delaines, and what is known as a light *B* type (that is, one with very slight development of folds) in the opinion of many would no doubt be

regarded as a Delaine."<sup>41</sup> Some three varieties of Delaines achieved popularity—the Dickinson Delaine, the Black Top Spanish Delaine Merino, and the National, Standard, or Victor-Beall Delaine.

The Delaines became very popular in eastern Ohio, western Pennsylvania, and northern West Virginia because of their combination of mutton character, long staple, and heavy fleeces. As the center of sheep production moved west, the Delaines, through their mutton form, gained additional vogue in Kansas, Colorado, Texas, and New Mexico. In Texas, they proved particularly popular as they seemed to withstand the hot weather there better than other American Merino strains.

#### RAMBOUILLETS

French Merinos were imported by Livingston, but the rage for the Spanish strains made American sheepmen forget about them and it was 1840 before interest in them revived. In that year D. C. Collins of Hartford, Connecticut, bought two rams and twenty ewes from the government flock in France.<sup>42</sup> The principal ram, Grandee, sheared fourteen

<sup>40</sup> Powers, *The American Merino*, 26.

<sup>41</sup> Plumb, *Types and Breeds of Farm Animals*, 511.

<sup>42</sup> In 1783 a large estate was purchased by Louis XVI of France at the village of Rambouillet, some forty miles west of Paris. To the farm which he established there were brought 48 Spanish Merino rams and 318 Merino ewes, of various families selected by M. Victor Gilbert for the King. In 1799 he made a second selection, reputedly not as good as the first, 237 of which reached Rambouillet in May, 1801. This became the French National Flock, and it has been bred along three bloodlines, without break, ever since. Selection was based on size, mutton form, fecundity, length and diameter of fiber, fleece shrinkage, etc., and improvement was effected in all particulars, including hardiness. From this flock and from private French flocks based on a similar foundation, the American breed of French Merinos, later called Rambouilletts, was obtained. Of these private French flocks, those of Victor Gilbert and his descendants, and MM. Cugnot, Lefebvre, Romain, Roger, Bellieu, Thorouin, and Sorreau were most prominent.

pounds and was an outstanding specimen for the period. In 1846 John Taintor of Connecticut brought over nine sheep bred by M. Victor Gilbert of Wideville, France, and in 1848, John D. Patterson of Westfield, New York, brought a large importation from the government flock at Rambouillet. This last was quite unusual for body size, ewes weighing 120 to 150 pounds and rams up to 300 pounds. In 1851 numerous flocks were brought over by Taintor, D. M. Rotch of New York, George Campbell of Vermont, A. P. Howard of Ohio, and R. C. Moulton of Ohio. The principal shipment came from the flock of Victor Gilbert, eighteen rams and eighty-two ewes, imported by Solomon W. Jewett of Middlebury, Vermont. Both the Patterson and Jewett flocks had a tremendous influence in later years.

Some of these French Merinos were not as successful as anticipated and eastern interest in them disappeared about 1860. The chief accusation made against them was a lack of hardiness and adaptability for American conditions. Outside the areas of Patterson and Jewett, and two small centers of French Merino breeding in Michigan under Capt. Henry Grinnell and in Ohio under A. P. Howard, the stock was neglected or crossed onto American Merinos and its influence was lost.

However, in 1880, W. G. Markham of New York visited Ranzin, Pomerania, Germany, and became interested in the flock bred by Baron F. von Homeyer.<sup>43</sup> Two years later he received from the Baron the gift of a ram and two ewes, which were the first of this breeding to be brought to America. In 1885 Markham obtained seven more rams, two of which were eventually shipped to Michigan. In 1890 Thomas Wyckoff of Orchard Lake, Michigan, brought over a ram and a ewe of the von Homeyer blood and thus became the first man in

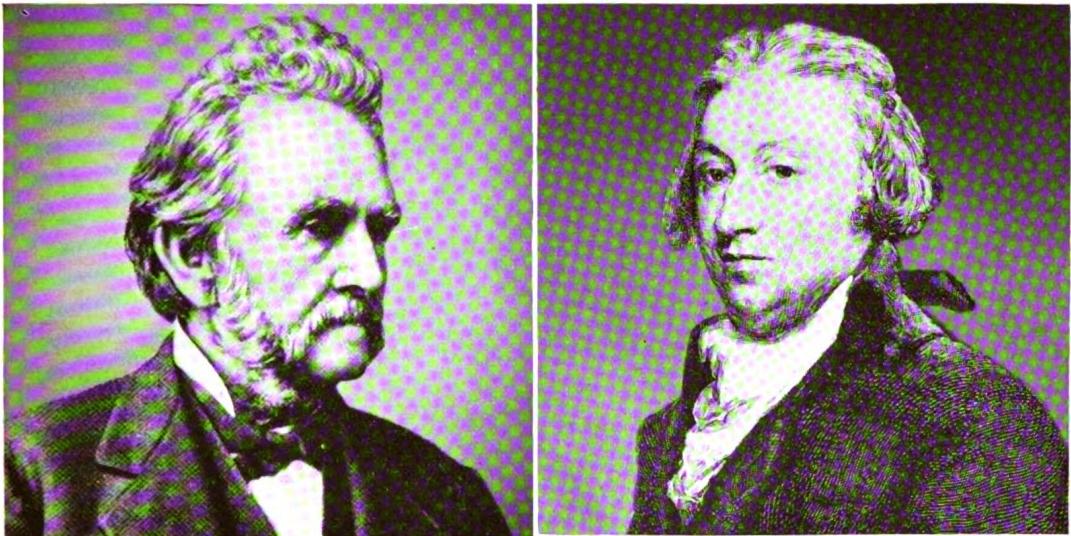
the West to have a purebred female. The next year he imported seven rams and sixteen ewes.

The von Homeyer Rambouillets came to public attention through the exhibit at the World's Columbian Exposition in Chicago in 1893, arranged and supervised by Mr. Markham. Their great size and superior merit attracted the attention of numerous breeders. To men who had seen no Merinos, save the strictly American type, they seemed an impossible creation from the Spanish foundation. During the next decade a large number of importations of Rambouillets occurred, some from France and some from von Homeyer. They appeared at an opportune time because sheep were cheap, and the thousands of Merinos on the western range were worth almost nothing because of the bottomless wool market created by placing wool on the free list in 1893-94. Flockmasters were looking for something better in order to stay in the business and these tremendous Pomeranian sheep appealed to them. They showed substance, mutton, and wool, and sheepmen recognized instinctively that they had a future on the western grazing grounds.

Following the price improvement of 1898, the Rambouillet business boomed. It had become apparent to all western growers that mutton would henceforth supply an important part of the flock income and the eastern breeders were

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<sup>43</sup> Baron F. von Homeyer of Ranzin, Pomerania, Germany, visited the French National Flock at Rambouillet in 1860 and purchased fifty ewes and three rams. In making his selections he chose the greatest possible size combined with mutton form and Delaine-like fleece character. He paid as much as five thousand francs for some of the choicest animals. His flock was maintained for more than thirty-five years and he sold sheep to all European countries, Australia, South Africa, South America, and the United States. In 1880 his rams sold to Argentina averaged \$1,090, and in 1893, at the World's Columbian Exposition in Chicago, and in the midst of a financial panic, his best rams brought \$500.



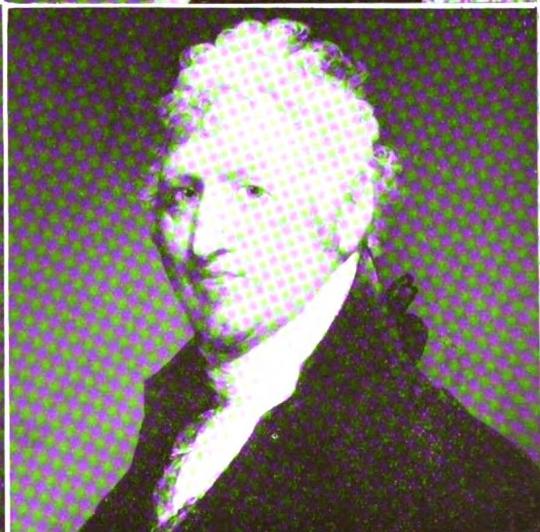
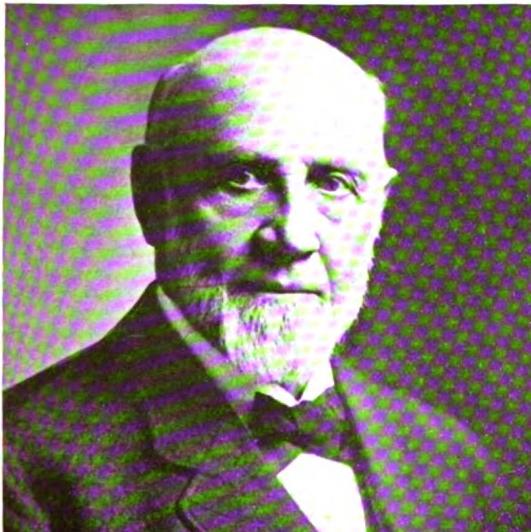
PANEL 26—(Above) Solomon W. Jewett, outstanding breeder of American and French Merinos in Vermont, Michigan, and California (pp. 94, 558).

(Above Right) Chancellor Robert R. Livingston, importer of French Merinos, and author of the classic *Essay on Sheep* (pp. 82, 552). (From portrait by Gilbert Stuart.)

(Right) George Washington Parke Custis, promoter of the Arlington breed of sheep, and the annual Arlington "Sheep Shearings" (p. 549). (From miniature by Walter Robertson.)

(Below Right) Colonel David Humphreys, aide-de-camp to General Washington, and importer of principal bloodlines on which the American Merino was based (pp. 82, 614). (From portrait by Gilbert Stuart in Yale Art Gallery.)

(Below) William G. Markham, chief promoter of the von Homeyer Rambouillet, and long-time secretary of the National Wool Growers' Association (pp. 94, 573).



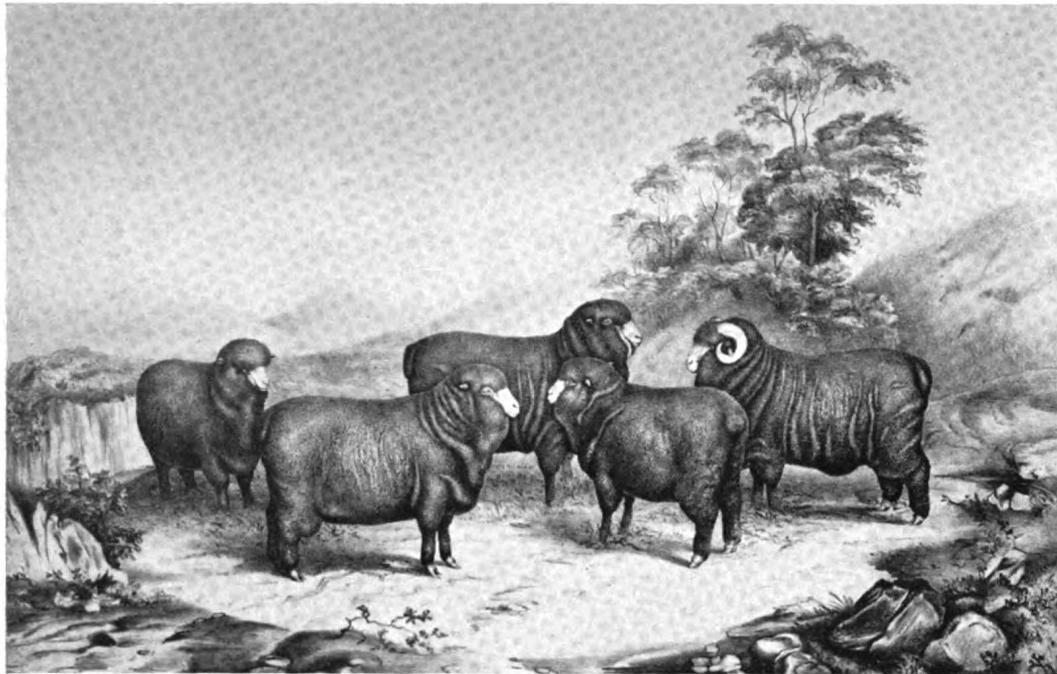


FIG. 27—Idealized depiction of Spanish Merino sheep belonging to Henry T. Cutts, of Orwell, Addison County, Vermont (p. 91), about the middle of the nineteenth century.



FIG. 28—Sheep shearing at "North Bend" on James River in Virginia. Note primitive handpower clippers.

hardly able to supply the demand. In the East, J. D. Patterson, and Markham and Roy, had the leading New York flocks; Howard, Moulton, Sibley, Kimball, Bates, and O. E. Lincoln and Sons (especially Dwight Lincoln), the most prominent Ohio flocks; and Thomas Wyckoff, A. A. Wood and Sons, E. M. Moore, Townsend, and Green and Lockwood the best in Michigan.

In 1899 the American Rambouillet Sheep Breeders' Association was formed in Pontiac, Michigan, but its headquarters were soon moved to Ohio. Other registry associations also sprang up, as there were many jealousies and conflicts of interest in getting the breed established. Breeders tracing to the von Homeyer foundation looked down on flocks descended from the earlier importations. Those having sheep tracing to the Rambouillet Stud Farm in France hesitated to let those whose flocks traced to private French breeders like Cugnot and Gilbert use the Rambouillet name. Eastern breeders who used ear tags to identify the individuals in their flocks looked with suspicion on the pedigrees of sheep from western flocks where the actual mating of a ram with a ewe was not witnessed at the moment and a record kept. For some years a French Merino Association competed with the Rambouillet.

But gradually differences became adjusted and with the advent of the first World War the breed boomed. In 1917-19, at the Annual Ram Sales conducted under the auspices of the National Wool Growers' Association at Salt Lake City, Utah, many rams sold for \$1,000 to \$1,500, and in 1918 C. N. Stillman of Utah paid \$6,200 for a two-year-old ram bred and sold by his father-in-law, John Seeley. At the same time

Bullard Brothers of California paid \$3,000 for Butterfield's Model ("Old Tedd") bred by the Butterfield Sheep Company, and sold a pen of twenty-four yearling rams for \$300 a head. When Patterson sold his French Merinos in California in the sixties, he received \$1,500 each for three rams, \$1,000 for one, \$800 apiece for two, and for eighteen others prices ranging between \$300 and \$700.

The Rambouillet now holds the range except for a Delaine region in Texas, and an Idaho-Washington district where black-faced mutton rams are favored for the early maturity and quickly attained weights of their market lambs. It has been an uphill fight but it is estimated by competent sheepmen that 98 per cent of the ewes west of the Mississippi River contain from 50 to 100 per cent Rambouillet blood.

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The whole course of the American sheep industry between 1800 and 1900 was changed by the advent of the Merino. As the century opened, citizens were fully aware of the necessity for fine-wooled sheep to supply our clothing industries, and were engaged in their introduction, but sheep raising itself was confined to the northeast section of the country. As the century closed, woolen mills were serving the entire nation, and the Merino or its derivatives, the Rambouillet and Delaine, had covered the entire country to the Pacific Coast, the Canadian boundary, and the Mexican border. Excepting only some 5 per cent of the sheep population that included English mutton breeds, Navajos, and so-called "native" ewes, all of the breeding flocks of the country were descended from the Merino stock.

*Sooth, 'twere a pleasant life to lead  
With nothing in the world to do  
But just to blow a shepherd's reed  
The silent season through,  
And just to drive a flock to feed—  
Sheep—quiet, fond and few.*

—Laman Blanchard, "Dolce far Niente"

♦ 7 ♦

## Sheep in the Old South

**S**OUTH of the Mason and Dixon line, sheep never acquired that status of indispensability which characterized their existence in other sections. They accompanied the early settlers of Virginia, the Carolinas, and Georgia, and furnished the foundation for their household fabrics. But they became a commercial product of southern agriculture only in the vicinity of cities where their mutton was in demand, or in Kentucky, Tennessee, and the hill and valley country of western Virginia.

The South held the monopoly of another fabric—cotton—and guarded it against competition with an almost irrational zeal. Washington, Jefferson, Custis, Mason, and a host of other leaders recognized the need of sheep in a well-balanced agriculture, but the line of least resistance favored the growing of cotton. Slaves were dependable workers in the cottonfield; they were helpless and irresponsible in the sheep fold. The negative attitude of most plantation owners was bolstered readily by Colonel Taylor's classic tirade against the species:

They (sheep) require and consume far more food in proportion to their size than any other stock . . . and . . . they cannot be made a profitable object . . . but by banishing tillage from vast tracts of the country. . . . It is probable that the hot constitution of sheep produces a rapid digestion and (an) . . . insatiable appetite. . . . If this voraciousness is not gratified, the animal

perishes or dwindle; if it is, he depopulates the country he inhabits. The sheep of Spain have probably kept out of existence, or sent out of it, more people than the wild beasts of the earth have destroyed from the Creation; and those of England may have caused a greater depopulation than all of her extravagant wars.<sup>1</sup>

With such violent language as a precedent, abetted by the supreme sectional jealousy for cotton, it is not surprising that the sheep industry never became strongly established in the "Old South."

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Throughout colonial days Virginia led the way in sheep production. Her flocks were larger and her manufacturing industry greater. The first sheep in the "Old Dominion" came to Roanoke Island in 1585 from Haiti. In the same shipment Sir Richard Grenville brought goats, swine, cattle, and horses,<sup>2</sup> but apparently none of them survived as progenitors of modern livestock, since none was found by the Jamestown or other settlers. The earliest definite statement with regard to their presence at Jamestown came from Captain John Smith who, at the time of leaving the little colony in the fall of 1609, listed

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<sup>1</sup> Colonel John Taylor, *Arator: A Series of Agricultural Essays*, 179.

<sup>2</sup> Richard Hakluyt, *Early Voyages, Travels and Discoveries of the English Nation*, Vol. 3 (1809-1812) :309.

the following livestock as being present—a horse, six mares, between five and six hundred hogs, the same number of fowl, and "some goats and sheep."<sup>3</sup>

As the numbers in the colony increased, fencing became a problem. In 1632, each owner was required to fence his own land if he wished to protect his crops from wandering livestock, but by 1640 swine owners were required to shut their charges in pens by night and to herd them by day. In 1646, a "sufficient fence" was defined as four and a half feet high and "substantial close down to the bottom,"<sup>4</sup> while the act of 1670 defined the term "sufficient" to mean, in the case of sheep and swine, that these animals could not creep through.<sup>5</sup> The problem of restriction was quite prominent by 1688, when "most persons of estate"<sup>6</sup> were beginning to keep breeding flocks.

The settlement of the tidewater country, both in Virginia and Maryland, forced the development of a herding practice in sheep and cattle (as distinguished from merely turning them into the woods to graze). The system developed slowly, due to the lack of a market for surplus livestock, the severity of the winters, the incidence of wolves, and the depredations of the Indians. At first the ranges were partially protected by a "fortified" fence across a narrow neck of land, and advantage was early taken of islands. In 1649 Virginia was reputed to possess three thousand sheep and five thousand goats,<sup>7</sup> and by 1660 the necessity of additional range for sheep and cattle was so impelling that some of the herdsmen on the frontier worked southward into North Carolina. What proportion of sheep was included in this movement is not known, but unquestionably there were a few flocks. The experience gained through herding was very valuable when the westward migration began.

Near the opening of the eighteenth century Governor Alexander Spotswood wrote the British Council of Trade that the depression in the staples market was leading to diversification both in agriculture and industry. Tobacco prices were so low that the planters could not buy British-made clothing for their own families, as had been their custom, so they were attempting home manufacture. The colonists were

. . . forced . . . into . . . planting Cotton and sowing Flax, and by mixing the first with their wool (they were trying) to supply the want of coarse Clothing and Linnen, not only for their Negroes, but for many of the poorer sort of housekeepers. . . . In one of the best countrys for tobacco, I am credibly informed there has been made this last year above 40,000 yards of divers sorts of Woolen, Cotton and Linnen Cloth.<sup>8</sup>

About the same time the first advice appeared on feeding sheep in Virginia. Hugh Jones wrote in 1724: "Indian corn is the best Food for Cattle, Hogs, Sheep, and Horses; and the Blades and Tops are excellent Fodder, when well cured."<sup>9</sup> Oats, clover, and other modern feeds were in regular use before 1750.

An interesting function of sheep in colonial Virginia was in connection with "seating," or using and improving land to which title had been granted, so as

<sup>3</sup> Captain John Smith, *Works of Captain John Smith, 1608-1631*, 471.

<sup>4</sup> William Waller Hening, *Virginia Statutes*, Vol. 1 (1823) :332.

<sup>5</sup> Lewis C. Gray, *History of Agriculture in the Southern United States to 1860*, Vol. 2 (1932): 145-46. Gray presents an interesting summary of fence laws in the southern colonies.

<sup>6</sup> Peter Force, Clayton's "Letter Giving an Account of Virginia," in *Tracts and Other Papers Relating Principally to the Origin, Settlement and Progress of the Colonies in North America, from the Discovery of the Country to the Year 1776*, Vol. 3, No. 12 (1839) :35.

<sup>7</sup> Force, "Perfect Description of Virginia," in *Tracts and Other Papers, etc.*, Vol. 2, No. 8 (1838) :3.

<sup>8</sup> Ulrich B. Phillips, *A Documentary History of American Industrial Society—Plantation and Frontier*, Vol. 1, quotes Governor Spotswood, 187.

<sup>9</sup> Hugh Jones, *The Present State of Virginia* (Sabin reprint No. 5, 1865) :40.

to confirm this title. Previous to 1700 the enforcement of laws governing "seating" was rather lax, and the requirement usually involved only the building of any kind of a house and the keeping of livestock on the land for one year. In 1713 a system of land classification based on proportion of tillable areas was adopted. On lands partly cultivable and partly suited only for pasturage, it was required on the pasturable portion that at least six sheep or goats, or three head of cattle, be grazed for three years on each fifty acres. On lands suitable only for pasturage, the foregoing requirement had to be met, and a good house, twenty by sixteen feet, built.<sup>10</sup>

Many of Virginia's sheep were of tropical derivation, due to the West Indies trading vessels and the African slave ships that touched at the colony. These animals were frequently hairy with a fuzzy undercoat of fair texture, but they were badly suited for an efficient wool production. They were usually crossed with English sheep, largely of the Wiltshire type, but the quality of colonial Virginia wool was normally coarse. In 1724 Hugh Jones<sup>11</sup> wrote that there was some wool in Virginia nearly as good as any near Leominster, but that it could be improved if the planters would house their sheep at night, and feed and bed them as in Britain. Such clips were obviously the exception. The homespuns, woolens, and linsey-woolseys produced usually were so irritating to the skin in Virginia's warm climate that they did not prove very satisfactory. Most of the spinning and weaving was done by negro slaves, and in 1768 George Washington estimated that his slaves had woven 772½ yards of linen, 355¼ yards of woolens, 144½ yards of linsey, and 40 yards of cotton; a total of 1,355½ yards weighing

983 pounds and worth £30, 15s., 10d., of which the wool was worth £8, 9s., 1d.<sup>12</sup>

Fulling mills were established in Virginia previous to the Revolution. The *Virginia Gazette*, January 13, 1774, published in Williamsburg, carried an advertisement of William Simmons' mill at Cabin Point, which quoted a rate of one shilling a yard for weaving and a similar amount for fulling, dyeing and dressing. He required that the wool be sorted, "taking the fine from the coarse,"<sup>13</sup> and young sheep's wool from old. Then he wanted it washed, greased, and carded into large "Rolls or Batts." After describing his process, he wrote, "N.B. It is to be observed that I work for ready money only, and that any person who wants to be supplied with wool may have it of me." On September 8 of the same year, William Roberts advertised in the *Gazette* that he would be glad "to set up a manufactory for weaving linens, cottons, woolens, and ship canvas." By 1800 a number of fulling, spinning, and weaving mills were in operation, despite the attacks of parasites and cur dogs which threatened ovine production in the tidewater counties.

With the recovery in the woolen business following the Revolution, a number of mills were established in Virginia. Robert Carter, Nomoni Hall, Northern Neck of Virginia, set up a woolen and linen factory at Aires in Westmoreland County, and on January 1, 1782, signed a contract with Daniel Sullivan, overseer, for six negro workers (weavers) and four winders. For one year's service, Sullivan was to receive £12 in gold or

<sup>10</sup> Gray, *History of Agriculture in the Southern United States to 1860*, 397-98.

<sup>11</sup> Jones, *The Present State of Virginia*, 41.

<sup>12</sup> Phillips, *History of American Industrial Society, etc.*, Vol. 2:324.

<sup>13</sup> *Ibid.*, 326.

silver money, twelve barrels of corn, four hundred pounds of pork, and fifteen pounds of picked cotton.<sup>14</sup> As for the productivity of the workers themselves, Sullivan estimated on September 15, 1787, that seventeen spinners would earn £132, 12s., that year, while four weavers would get £110, a most inefficient output.<sup>15</sup>

By the end of the century, sheep in the eastern part of Virginia were becoming decadent and running down in quality. The lands of the West were exercising considerable attraction, and it was not uncommon to find advertisements like that of William Marquez in the *Winchester Gazette*, of January 9, 1799, who was "designing to move . . . to the Western Country," and who offered all of his stock for sale, "consisting of cattle, sheep, hogs, and abundant farm equipment."<sup>16</sup> The same general considerations were applying to the Carolinas and Georgia, although sheep were far scarcer in those three states. The stock of this species kept on their farms was inferior to that of Virginia, and in Georgia the Spanish *churros*, introduced from Florida, may have had some influence on the so-called "native" flocks.<sup>17</sup>

Interest in improving the quality of Virginia sheep became intense in the early part of the eighteenth century. Attempts were made to force owners, by legislation, to keep the blood of their sheep pure and to "mark full-blooded rams." The legislature was also asked to exempt purebred sheep from sheriff's seizures for a few years, as an added inducement to bring improved stock into the state. The *Richmond Inquirer* of September 28, 1810, asked that the legislature tax dogs heavily, as the rearing of valuable fine-wooled sheep at \$400 to \$500 per head was far too hazardous without protection from dogs.

Thomas Jefferson, James Madison, General John Mason, and General Thompson Mason were all active supporters of fine-wooled sheep, and Custis's efforts were all-pervading. General Thompson Mason had an exceptional flock of Infantados on an estate adjoining Mt. Vernon, and there were several choice flocks in Fairfax, Loudoun, Prince William, Statler, King George, Fauquier, and Jefferson counties.<sup>18</sup> In 1810 the "Culpepper Society for the Promotion of Agriculture and Domestic Manufactures" was formed, with a primary interest in sheep and wool, and a year later the "Merino Society for the Middle States" was established.<sup>19</sup> The depression following the War of 1812 took its toll of breeders, but a few survived until 1825.<sup>20</sup>

From 1820 to 1845 wool growing was almost entirely neglected in eastern Virginia, and fine-wooled rams were used only incidentally in the remainder of the state. By 1840, however, continuous tobacco production had caused many soils to "run out," and interest in sheep redeveloped as a means of restoring the fertility of the soil. The chief sheep authority of the period, Henry S. Randall<sup>21</sup> recognized the fact that the South possessed an adequate fertilizer practice which, when supplemented by sheep culture, could be substituted with profit for the system of rotating soil-

<sup>14</sup> Phillips, *History of American Industrial Society, etc.*, Vol. 2:315.

<sup>15</sup> *Ibid.*, 315-16.

<sup>16</sup> *Ibid.*, 255.

<sup>17</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 477.

<sup>18</sup> *Ibid.*, 456.

<sup>19</sup> *The Agricultural Museum*, Vol. 1 (1810):81; Vol. 2 (1811):92.

<sup>20</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 456.

<sup>21</sup> Randall, *Sheep Husbandry*, 83-85.

depleting crops like tobacco, cotton, flax, corn, and rye, with an intervening fallow period of two or three years.

Edmund F. Noel introduced Leicesters and Southdowns into eastern Virginia in 1842,<sup>22</sup> and A. W. Nolting and a gentleman named Littlefield established fine Merino flocks near Richmond in 1845.<sup>23</sup> Throughout the forties numerous authorities advocated sheep for the mountain sections of Virginia, as well as those of the Carolinas, Tennessee, and Georgia. Virginia was particularly attractive, and the enthusiasm stimulated a few experimenters on a large scale. The most pretentious, financed from New York, called for the purchase of one hundred thousand acres of land in western Virginia in 1817, on which one hundred twenty thousand sheep were to be established.<sup>24</sup> Just before the outbreak of the Civil War, Henry More was running sheep on twenty-five thousand acres in Webster County, Virginia, and had sent to Switzerland for two sheep dogs in 1860.<sup>25</sup>

#### MARYLAND

Very few sheep were taken into Maryland when it was first settled, but in 1638 Lord Baltimore negotiated in Virginia for a ram and ten ewes.<sup>26</sup> The next year Secretary Lewger of the Maryland Colony apparently procured fifty more ewes in the same region.<sup>27</sup> Both Maryland and Virginia had enacted laws soon after their first settlement to prevent the exportation of sheep and wool, and transactions as described above had to be almost clandestine in nature. Maryland did not repeal her non-export law until 1676.

Sheep failed to multiply rapidly in the new colony, although Maryland underwent a range herding experience somewhat similar to Virginia's, and pushed her flocks across the Potomac into the northern section of the Old

Dominion. Flocks foraged poorly without supervision, and the British policy of discouraging sheep and wool in the Colonies particularly restricted Maryland. In 1699 it was made illegal to load any wool or wool products from the Colonies on any ship, wagon, horse, or other means of transport, for the purpose of carrying them to any other point.<sup>28</sup> Throughout the first two-thirds of the eighteenth century the sheep industry of Maryland grew only in proportion to human population, but the non-importation agreements and the break-off of British trade during the Revolution gave it a marked impetus.

A number of planters came to use a breed of sheep reputed to originate at the Cape of Good Hope, a black-faced, hardy breed that seemed superior to the stock previously used. Parkinson<sup>29</sup> believed some of these better animals were from Holland. He also recognized Spanish sheep as well as a variety from the West Indies that had no wool, but that was red and white in color and resembled a goat. He thought that the Colonial wool was in general soft and fine, and quite long (four to six inches), but the better fleeces averaged only three to four pounds each. He particularly criticised the breeding system used, under which the best animals were frequently sold to the butchers, and only the culs left for reproduction. Some of the Maryland planters handled sheep on an

<sup>22</sup> *The Farmer's Register*, Vol. 10 (1843) :241.

<sup>23</sup> *The Southern Planter*, Vol. 5 (1845) :35, 68.

<sup>24</sup> *The North Carolina Farmer*, Vol. 3 (1847) :209.

<sup>25</sup> *The Journal of Agriculture*, Vol. 3 (1860) :274.

<sup>26</sup> *The Calvert Papers*, Vol. 2 (1889) :149-51.

<sup>27</sup> *Ibid.*, 196-99.

<sup>28</sup> Oliver Morton Dickerson, *American Colonial Government, 1696-1765*, 303-5.

<sup>29</sup> Richard Parkinson, *A Tour in America in 1798, 1799, and 1800*, Vol. 1 (1805) :75, 289, 293-98.

extensive scale. In 1783 Edward Lloyd's estate of 11,884 acres had 799 sheep, 571 cattle, 147 horses, and 261 slaves.

As the new century opened, following the Revolution, the best southern flocks of sheep were found in Maryland and Virginia. The general run of farmers was going through a "big-type" craze and there was "a rage . . . for large horses, large cattle, large sheep, (and) large hogs."<sup>30</sup> General H. D. Gough, General Ridgely, and others had the South African strain of sheep, and Gough also had some Persian stock.<sup>31</sup> Around Baltimore were located several flock-masters who were interested in Custis's efforts at Arlington, men who purchased Arlington Long Wool rams from him but who later became interested in the Merino. Between 1805 and 1820 there were several flocks of the latter breed near Baltimore containing ewes purchased for \$84 to \$100 apiece.

The leading Maryland breeder, General John Mason, owned a fine estate on Analostan Island, in the Potomac River opposite Georgetown, D. C., as well as productive farms in both Maryland and Virginia. In 1808 he had purchased a Dupont ram and in 1811 he procured a seven-eighths blood Humphreys ram. This gave him an insight into the possibilities of the Merino, and before the year was over he had imported Paular, Infantado, Guadalupe, Viadillo, and Montarco strains. The flock was maintained under his direct supervision for many years, and he sold a large number of rams that influenced the wool production of the western part of Maryland and Virginia. In 1811, he won several prizes at the Columbian Agricultural Society's show at Georgetown, and in 1812, he received high honors both on breeding animals and fleeces.<sup>32</sup> A second resident of Maryland, Governor Edward Lloyd of Wye, Talbot County, purchased a fine Merino flock in 1810, and that fall,

at his inauguration, wore a suit of homespun made from the best fleeces he had produced.

All parts of Maryland seemed suitable for sheep but the industry flourished best in the western section. In the southern part of the state and in the eastern counties, flocks had to struggle to survive, as destruction by dogs was very great. Yet, farther west, fourteen fulling mills were operating in Washington County by 1811, and woolen mills were established in Hagerstown the same year. The fine-wool industry was blasted by the depression of 1816-17, and not until the fifties were new sheep introduced when the mutton breeds, Southdowns, Shropshires, Oxfords, and Leicesters predominated.<sup>33</sup> In 1840, at the first Maryland State Fair, there were exhibits of Southdown, Leicester, and Cotswold sheep.<sup>34</sup>

#### NORTH CAROLINA

Sheep were of little interest in the Carolinas previous to the Revolution, although a few of them were imported to supply family woolen needs. According to Lawson, the majority of North Carolina's first permanent settlers were migrants from Virginia seeking better pasturage for their livestock.<sup>35</sup> He believed that sheep would thrive, though his experience showed that they did better after the country was opened up than while it was still timbered. The

<sup>30</sup> John B. Bordley, *Essays and Notes on Husbandry and Rural Affairs*, 161.

<sup>31</sup> Parkinson, *A Tour in America in 1798, 1799, and 1800*, Vol. 1:3-5.

<sup>32</sup> *Ibid.*, 450.

<sup>33</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 450.

<sup>34</sup> *The Farmer's Register*, Vol. 8 (1840):579.

<sup>35</sup> John Lawson, *The History of Carolina Containing the Exact Description and Natural History of that Country, Together With the Present State Thereof*, 59, 62, 63, 79-81.

flocks principally supplied homespun materials. In his opinion the region was far enough south with sufficiently mild seasons to make it unnecessary to provide either shelter or winter feed. He was particularly impressed by the industry of the women, who made quantities of cotton, linen, and woolen cloth, and clothed their large families "very decently . . . so that they have no occasion to run into the Merchant's Debt."<sup>36</sup>

Many of the smaller farmers were from the northern colonies, or were of European extraction, and were so industrious that they lived among real abundance, with good-sized flocks of sheep, and herds of swine, cattle, and horses. Actual surpluses of some commodities were produced and livestock was a frequent article of trade. North Carolina soon became the most important of all the southern colonies as an exporter of livestock products, and among its exports to the West Indies in 1768 were included a few live cattle and horses, and 514 head of sheep and swine. In addition, 2,241 barrels of meat—mostly pork and beef—were shipped there, and since some barreled products were sent via Charleston, the total production of the Colony may have been greater, as meat shipped by this route was probably credited statistically to South Carolina.

Most of the livestock exported on the hoof went into Virginia, as slaughtering facilities there were far superior to those of North Carolina. Also, as Virginia's woolen mills developed following the Revolution, there was a small transport of wools thither.

When the great Merino boom developed about 1810, North Carolina took small interest, and a Merino ram from the Livingston importations, which was exhibited at Camden on July 4, 1810, attracted very little attention. A few

breeders carried the sheep responsibility right up to the Civil War, but the state was primarily a region of small flocks producing only enough wool to meet home needs. This condition was characteristic up to the middle of the eighteenth century.

#### SOUTH CAROLINA

The first sheep came to South Carolina in 1669, with Captain West, to the settlement on Ashley River.<sup>37</sup> In 1670 Captain Brayne was reported to have three sheep on his plantation,<sup>38</sup> and the next year sheep and goats were thriving well, although wolves were sufficiently plentiful to excite apprehension.<sup>39</sup> Ash announced that in 1682 the settlers of South Carolina had many thousands of sheep, cattle, and swine,<sup>40</sup> and that sheep did well, though they required a herder to protect them from the wolves.<sup>41</sup> By 1710, Nairne wrote that the colonists had abundant cattle and hogs, and "some sheep and goats."<sup>42</sup> He noted the sale of an estate in which a ram and ten ewes brought £7.<sup>43</sup>

About 1731, serious attempts were made to improve the quality of Carolina sheep, and Purry claimed that there was a particular variety in South Carolina "whose wool is not inferior to the finest

<sup>36</sup> Lawson, *The History of Carolina, etc.*, 83–85, 114.

<sup>37</sup> *Collections, South Carolina Historical Society*, Vol. 5 (1897) :127.

<sup>38</sup> *Ibid.*, 215.

<sup>39</sup> *Ibid.*, 308.

<sup>40</sup> Thomas Ash, *Carolina, or a Description of the Present State of that Country* (1682), reprinted in A. S. Salley, Jr.'s *Narratives of Early Carolina, 1650–1708*, 149.

<sup>41</sup> *Ibid.*, 149.

<sup>42</sup> Thomas Nairne, *A Letter from South Carolina*, 13.

<sup>43</sup> *Ibid.*, 52–54.

<sup>44</sup> Jean Pierre Purry, *Description of the Province of South Carolina*. (1731), reprinted in B. R. Carroll's *Historical Collections of South Carolina* (1836), Vol. 2:133.

Spanish wool."<sup>44</sup> During the Revolution a number of societies were formed to promote wool growing, and sheep production became concentrated more and more in the hands of the larger plantation owners who used their wool to clothe the slaves. By the early part of the nineteenth century, David Rogerson Williams, one of South Carolina's largest planters, had nine plantations totaling almost thirteen thousand acres, with 500 slaves, 50 sheep, 208 cattle and 600 to 1,000 hogs.<sup>45</sup> It required two hundred bales of cotton annually to meet his domestic needs, and, since he had only fifty sheep, the wool must have been scattered quite thinly through his fabrics.

A few Merinos were taken to South Carolina by Henry Izard, who purchased them from the popular flock of Dr. James Mease of Philadelphia, but the agricultural public again evinced no interest. The "native" sheep of both Carolinas seemed to satisfy their requirements for home woolens, and at the middle of the nineteenth century nearly every farmer still retained a small flock to supply wool for winter clothing. There was a weak demand for mutton, but so weak that B. F. Taylor's and Colonel Wade Hampton's breeding of both Leicester and Southdown flocks near Columbia in 1845<sup>46</sup> evoked criticism and opposition. Colonel Watts was instrumental in bringing broad-tailed sheep to South Carolina during the forties, but they too perished in the developing prejudice against sheep husbandry. About this time also a few enthusiasts tried to promote sheep growing on the salt marshes, in spite of the susceptibility of sheep to disease in such districts.<sup>47</sup>

#### GEORGIA

The first development of agriculture in Georgia was the extension of the

herding industry. Most of the livestock came from South Carolina. Cattle and hogs were present from 1733 forward, but it was two or three years afterwards when sheep were introduced. In 1740 flocks were still scarce and high in price,<sup>48</sup> but during the decade 1760-70 the *Georgia Gazette* of Savannah occasionally listed sheep among the exports. However, the numbers were small, as the wolf menace was not overcome until well into the nineteenth century. The Colony was not seriously disturbed by the restrictions on mutton and wool exports previous to and during the Revolution, because the numbers were small and the agreements between the Colonies were not kept to the letter.

Georgia had a breed of its own, the Moravian, which was probably a fancy name applied to its own "native ewes." These sheep may have had a *churro* foundation from Florida, but they were unquestionably modified by strains brought in by the English colonists. In 1810 four Merino rams were shipped to Georgia from New York, and after the War of 1812 a few more of the breed were established in various spots in the state.<sup>49</sup> But they had little long-time influence. Some of the breed introduced into Illinois and Indiana showed Southdown characteristics as well.

In both the Carolinas and Georgia the industry expanded after the Revolution, the peak in sheep population being

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<sup>44</sup> Harvey T. Cook, *The Life and Legacy of David Rogerson Williams*, 210, 216.

<sup>45</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 475.

<sup>46</sup> *Southern Agriculturist*, Vol. 8 (1835) :539-41; Vol. 9 (1836) :232.

<sup>47</sup> *Collections of the Georgia Historical Society*, Vol. 1 (1840) :199.

<sup>48</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 477.

reached about the middle of the century. Before the outbreak of the Civil War the decline had commenced, a decline based on the gradual disappearance of the household weaving practice. This latter had persisted longer in the South than elsewhere because of the low cost of the work done by slaves, but by the middle of the nineteenth century the woolen and cotton mills of the North were turning out fabrics more cheaply than slave labor.

The leading sheep authority of Georgia during the middle of the nineteenth century was Colonel Richard Peters of Atlanta, who had flocks of Southdowns and Saxonies. He differed with most of his contemporaries by denying the value of the native "wire grass" as a year-round feed, and urged the growing of hay and other supplemental feedstuffs for the dry and cold seasons. Improvement of quality in flocks also interested him and he prepared papers and delivered numerous addresses just before the Civil War. He stated that during the middle third of the nineteenth century most Georgia sheep were in a region 100 to 150 miles north of the Florida and Gulf Coast lines,<sup>50</sup> and mentioned several flocks in the state containing as many as thirty-five hundred head.

#### THE GULF STATES

While the Spanish took sheep into Florida at a very early date, their influence on the flocks of the Old South has been difficult to identify. Another tenuous relationship developed from the great French Canadian, d'Iberville, along the Gulf Coast from Biloxi to New Orleans, although the influence of the French in the Mississippi Valley was more readily discernible. The first expedition of d'Iberville reached Biloxi in January, 1699, but included only breeding cattle, swine, chickens, and turkeys. The next

season he purchased goats and additional hogs in San Domingo for Louisiana, while in 1701 he brought more livestock to Biloxi for the settlement there. In this same year he attempted to obtain Spanish sheep,<sup>51</sup> though the record of their arrival is unavailable. For many years the livestock, except swine, increased slowly.

Procurement of domestic animals for Louisiana from the Spanish West Indies failed repeatedly, and efforts to obtain cattle from South Carolina were also fruitless as late as 1719. An attempt, too, by LaHarpe in the latter year to trade with the Spanish in Texas was unsuccessful,<sup>52</sup> but contacts made with the Indians at that time permitted later exchange, with the savages serving as intermediaries. By 1724 the colony had a hundred sheep, a hundred goats, eleven hundred cows, three hundred bulls, and many hogs, horses, and poultry.<sup>53</sup> In order to increase the numbers, the law as late as 1737 forbade the slaughter of livestock without advance official declaration of intention.<sup>54</sup> Sheep were probably brought from the Canaries in the late 1720's,<sup>55</sup> and by 1746 there were many good-sized flocks of sheep and ten thousand cattle.<sup>56</sup> Two years earlier Governor Vaudreuil purchased a plantation

<sup>50</sup> John L. Hayes, "Sheep Husbandry in the South," reprinted from *Bulletin of the National Association of Wool Manufacturers*, Senate Executive Document No. 25, 46th Congress, 3rd Session, quotes Colonel Peters, 81.

<sup>51</sup> Peter J. Hamilton, *Colonial Mobile, 1519-1821*, 37.

<sup>52</sup> Nancy M. Surrey, "The Commerce of Louisiana During the French Regime, 1699-1763," in *Studies in History, Economics and Public Law*, 71 (1) (1916) :371, 410, 416, 446.

<sup>53</sup> Bernard de LaHarpe, *Journal Historique de l'Establishissement des Francais a la Louisiane*, 375.

<sup>54</sup> Surrey, "The Commerce of Louisiana During the French Regime, 1699-1763," 256.

<sup>55</sup> *Ibid.*, 256.

<sup>56</sup> *Ibid.*, 257-59.

about a league from New Orleans, which was stocked with fifty-seven cows and oxen, "as many sheep"<sup>57</sup> and thirty-four slaves. By the last of the eighteenth century, supplies had increased sufficiently that there were small flocks of sheep at various of the French settlements in the central Mississippi Valley and the Illinois country. The Jesuit fathers had trained the Indians of this region in various types of European industry and they ranged sheep, cattle, and swine near their villages.<sup>58</sup>

Mississippi and Alabama got many of their sheep from these French sources, but their business advanced slowly. At the time of the first census only Florida of the southern states had fewer sheep than Alabama, Mississippi, and Louisiana, and the value per head of their flocks was much less than in the other states. All across this region the problem of parasites proved formidable. Both Alabama and Mississippi tried to encourage production by prizes at fairs, and in 1843 several flocks were exhibited at Montgomery.<sup>59</sup> State sanitary measures were later adopted but the parasite situation was always difficult. When the industry began to improve in Tennessee at the end of the last century, Alabama and Mississippi sheep posed a serious problem. A Tennessee writer stated in 1920:

Conditions have not been so favorable for sheep growing in this state. . . . The no-fence law sounded the death knell of the industry. . . . We remember great hordes of half-famished, wormy, diseased knot-heads sold at any price one chose to put on them—sometimes less than a dollar each. Then it was that Tennessee discovered the great value of the Alabama ewe as a mother of spring lambs . . . and by so doing poisoned its farms and made it impractical to grow purebreds until . . . a few years (could be spent) cleaning up.<sup>60</sup>

Mississippi, of the Gulf States, developed the greatest interest in sheep and had the best farm flocks, although it did

not exceed Alabama in sheep numbers until 1890. More recently it has dropped behind Louisiana. Sheep men heading from the Northeast for Texas, during the drives of the fifties into the latter state, often stayed in Mississippi. In 1852 John W. Stephens landed in Providence in that state with a flock of Vermont Merinos, principally owned by his brother George, who remained in Vermont. He wrote George on July 12 of that year:

I guess you would like to hear something about our sheep. . . . Well, I have all the old ones yet except the one that Collin (the shepherd) left some forty-five miles below here. I called to get her and her lamb about six weeks ago, but the man who had them was not willing to give them up. He said that he considered I had given the ewe to him. I offered five dollars for his trouble with them but he would not take it. . . . I (have) left three buck lambs, rather nice I think. I have been spoken to by two or three individuals about the buck lambs. I don't know whether I shall sell them or not. I have thought that we might afford to let them go at \$50 apiece. . . . It makes some of these southerners open their eyes, when you tell of a fifty dollar lamb. They also stare when you open a fleece and let them take a peep. . . . I do wish I knew whether or not any of the lambs are of the French or German stock. There are some two or three of them that carry noble looking ruffles. It is a matter of curiosity for the people here to look at them, wool from the hoof up, a great ruffle under the neck.<sup>61</sup>

Four years later he exhibited them at a local fair:

I attended the first county fair at Grenada

<sup>57</sup> *The Present State of the Country and Inhabitants of Louisiana*, by an Officer at New Orleans to a friend at Paris (1744), 34.

<sup>58</sup> Andre Penicaut, "Annals of Louisiana from the Establishment of the First Colony under M. d'Iberville to the Departure of the Author to France in 1722," reprinted in B. F. French's *Historical Collections of Louisiana and Florida*, n.s. (1869), 107.

<sup>59</sup> *The Agriculturist and Journal of the State and County Societies*, Vol. 4 (1843):25.

<sup>60</sup> *The American Sheep Breeder*, 40 (8) (August, 1920):151.

<sup>61</sup> John W. Stephens, Providence, Mississippi. Letter to George Stephens in Vermont (July 12, 1852), in possession of Edwin Moore, Lometa, Texas.

last week, carried down six sheep, took a premium of \$7.50 on them, and sold one for \$25. My sheep excited a good deal of attention amongst the natives that had never seen a sheep before.<sup>63</sup>

As a result of the Civil War, sheep husbandry declined in the Gulf States, but by 1877 was getting well established again. In reporting on sheep husbandry in the South, Hayes<sup>64</sup> lists the names of thirteen Mississippi sheep breeders, eleven Alabama breeders, seven Florida breeders, and one Louisiana breeder who cooperated with him. From the other southern states there were twenty-four breeders from Georgia, eleven from Arkansas, seven from North Carolina, and three from South Carolina who were assisting.

#### "NATIVE" SHEEP IN THE SOUTH

As the southern sheep industry began to improve again in the middle of the nineteenth century, considerable interest was aroused in the so-called "native" ewes to serve as a foundation for new flocks. They had few characteristics to recommend them beyond their hardiness and milking qualities, as their fleeces were light, open, and coarse, seldom exceeding two to three pounds in weight. Moreover they were totally lacking in mutton conformation. Soil depletion in Virginia, Kentucky, and Tennessee stimulated a considerable interest in building flocks. Southdowns, Cotswolds, and Leicesters were introduced and crossed on native ewes. The leading influence in the first two breeds was exercised in the bluegrass section by Woodburn Farm, Lexington, Kentucky, the property of Robert Aitcheson Alexander.<sup>65</sup> Southdown crosses were particularly popular, and the rams from this farm were highly important in modifying the traits of the native stock. When interest in native ewes was revived toward the close of the nineteenth century, they were found to possess more

Southdown characteristics than those of any other breed.

The origin of the "native" sheep is of interest. Apparently they depended on no special bloodline, but survived by sheer hardiness, despite the neglect of the farmer and the exigencies of the environment. Not only were the sheep required to run in the open, unattended most of the year, but after shearing each spring they were turned into woods that were sparsely grassed, and required to run the gauntlet of the ever-present hounds, semi-starved curs, and occasional wolves. In Virginia and North Carolina those that survived were admitted to the farmyards in the late fall and given intermittent care during the winter. But when shorn the following spring, they were again thrown out on their own resources. One of Maryland's best farmers, John Beale Bordley, of Wye, stated that he gave his sheep in winter "only a few corn blades, if snows happen to be so deep as to deprive them of their common pasture food, and some green food from the tailings of small grain sown; also a few—too few—roots."<sup>66</sup> In South Carolina, Georgia, and Alabama the majority of flock-owners forced the ewes to shift for themselves the whole year through. Most farmers came to believe that the "native" sheep were the best because of their hardiness under limited care and their rustling propensities on the woodland ranges.

Acknowledging such conditions, it is very evident that most characteristics of market value—such as quality of fleece, or ripe, juicy mutton—would soon be

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<sup>63</sup> John W. Stephens. Letter to George Stephens in Vermont (November 6, 1856), in possession of Edwin Moore, Lometa, Texas.

<sup>64</sup> Hayes, *Sheep Husbandry in the South*, 1-105.

<sup>65</sup> Edward N. Wentworth, *The Portrait Gallery of the Saddle and Sirloin Club*, 211.

<sup>66</sup> Bordley, *Essays and Notes on Husbandry and Rural Affairs*, 177.

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lost. In many sections the process was intensified by crossing the Tunisian, Asiatic broad-tail, and other exotic varieties; animals possessed of great hardiness and constitution but of few traits of economic importance. Gradually the ewes came to have a standardized appearance, with a long neck, peaked shoulders, narrow chest, hollow chine, protruding spine, bare loin, and meatless incurving thighs. The legs were close together and crooked, the rump was short and sloping, the fleece was open, coarse, and short-stapled, and the unwooled parts of the face, ears, and legs were covered with black, gray, or brown hair. Sometimes the latter parts were mottled in color, and usually the fleece was permeated with black fiber. In size they were small, weighing sixty-five to eighty pounds at maturity.

Ewes with brown or grayish-brown markings were preferred, as this quality was supposed to indicate a higher proportion of Southdown blood. There was little difference, however, between the various strains, except insofar as they had become acclimated to the region where they were to be used. One excellent trait which they had developed over the years was a resistance, that in some cases almost approached immunity, to the ravages of the common parasites—a resistance denied to the improved breeds introduced as the industry recovered. At the close of the nineteenth century these were the ewes on which the milk lamb production of Kentucky and Tennessee was based.

#### SLAVES IN WOOL PRODUCTION

Among all forms of agriculture possible in the South, slave labor seemed least adapted to sheep husbandry. The care of ewes at lambing time, the technique of shearing, and the spinning and weaving of wool required the exercise of more initiative and responsibility

than the average negro slave ever developed. Of the three classes of work, the last was most practicable, as it more nearly consisted of routine movements, but the productivity of slave labor was limited indeed. Under the plantation system only enough sheep were carried to provide wool for the clothing of slaves and a rarely occasional mutton.<sup>66</sup> As mentioned earlier, Sullivan estimated that total production of four weavers in a year was worth £110, or only \$137 apiece, while seventeen spinners produced \$663 worth of yarn, or \$39 apiece.<sup>67</sup> Even considering the lower price levels that then prevailed, these figures illustrate why the industry never flourished in the South before the war. Skilled shearing was a task far beyond the slave's possibilities, except in unusual individuals, and the natural short staple of the "native" flocks was made less useful and valuable by careless shearing. As for the care required during lambing time, the handling of rams and the host of small ministrations which the successful shepherd bestows on his flock—they were beyond the slave's comprehension and personal interest.

Slaves did the butchering on many plantations and were fairly effective in this activity. Charles C. Pinckney refers to their use in this capacity on his plantation on Pinckney Island near Charleston in 1818, and among his memoranda of incidentals includes the slaughtering of lambs.<sup>68</sup> For certain other knife work they seem to have been less effective. Leven Covington reported on March 31, 1829, that he had all hands pulling stalks till noon, then working

<sup>66</sup> *Annual Reports, Agriculture, U. S. Patent Office* (1849), 161; (1850), 233.

<sup>67</sup> Phillips, *History of American Industrial Society, etc.*, Vol. 2:315-16.

<sup>68</sup> *Ibid.*, Vol. 1:206.

on the sheep pasture fence, and finally altering and marking "seventeen calves and twenty-six lambs."<sup>69</sup> Regardless of cause, however, the sheep industry never prospered under slave labor and its inefficiency seems to have provided a reason that would have assured its ultimate discontinuance.

#### WOOL AND COTTON

In 1814 Colonel Taylor remarked, "It is curious that wool should be supplanting cotton here, whilst cotton is supplanting wool in Europe."<sup>70</sup> The Colonel was writing at the peak of the Merino boom, while army demand still drained our home woolen production and while fine-wool prices were still at their highest levels. Had he written three years later the tone of his remarks might have been changed. His chief fear seemed to be that sheep would destroy the cotton industry in Virginia. "It is admitted," he wrote, "that the wool of the sheep is, to a certain extent, a necessary, and often a luxury, but if I fancied a pearl why should I dive for it, when those who love the employment wish to supply me?"<sup>71</sup> Apparently he could endure sheep elsewhere but not in the Old Dominion.

To clinch the argument from the planter's viewpoint he announced:

It is probable that an acre of proper soil in the proper climate is capable of raising ten times as much cotton wool as sheep's, and if we shall only glance at the vast quantity of the former material for clothing, supported from a small district of country, thinly peopled, we shall at once see the capacity of the earth to produce it to any needful extent, without paying depopulation for raiment.<sup>72</sup>

Colonel Taylor was not entirely destructive in his opposition to sheep. He was sufficiently impressed by their value in crop rotations and in maintaining fertility to recommend as a substitute, in a four-year rotation, a system of resting the soil for two years after two years of manuring and cropping. Resting soils

fifty per cent of the time to avoid sheep culture seems a high tribute to the value of sheep and a heavy penalty for failing to keep them.

The farther south one went along the Atlantic Coast, the more pronounced the rivalry between cotton and wool became. Cotton growing easily fitted the plantation system to which these states had become accustomed during the period of colonial life under the British flag, and the conservative southerners recognized that widespread development of sheep culture could change the whole scheme of their agricultural procedure. Despite the fact that most of the criticisms crystallized in Virginia, the greatest physical opposition to the introduction of sheep came in the Carolinas and Alabama. The reluctance of the planters to permit any change in routine was most marked in these states, and they attached full credence to all arguments which showed that the cotton market was threatened. John Randolph, the statesman of Roanoke, is quoted as saying that he would walk a mile out of his way to kick a sheep. In Columbia, South Carolina, a meeting was held in 1848 actually to protest the introduction of mutton sheep by Colonel Wade Hampton and some of his friends, on the ground that it was a mere subterfuge to introduce the woolen industry into the state.

#### KENTUCKY-TENNESSEE

The best methods of sheep husbandry from the wool standpoint in the prewar South were employed in the mountain

<sup>69</sup> Phillips, *History of American Industrial Society, etc.*, Vol. 1:231.

<sup>70</sup> Taylor, *Arator: A Series of Agricultural Essays*, 187.

<sup>71</sup> *Ibid.*, 186.

<sup>72</sup> *Ibid.*

country of western Maryland, Virginia, eastern Tennessee, and western North Carolina, but the best mutton sheep were developed in the bluegrass sections of Kentucky and Tennessee. Mutton production in this region was really carried on in the earlier days as a sideline of cattle raising, and both sheep and hogs were kept to clean up the wastes of the farm which the cattle did not use. From the standpoint of commercial sheep production, the most important section of the Old South developed in this latter area.

Before the War of 1812 Kentuckians were greatly interested in improving agriculture. Several societies were formed for this purpose, and one of their activities was to introduce better breeds of sheep, cattle, and horses.<sup>73</sup> A few high-priced Merinos were imported, but the fine-wooled breeds did not prove to be so well adapted to the bluegrass region as desired. During the 1830's and 1840's a sharp transition to the mutton breeds occurred. Livestock shows did much to facilitate the change, the first one being established at Lexington in 1816, by Colonel Lewis Sanders.<sup>74</sup> Many of the early agricultural societies passed out of existence with the Merino,<sup>75</sup> but a few specialized sheep societies lasted throughout the years.<sup>76</sup> Exports of sheep were large throughout the thirties; and in 1838 Breckenridge County exported a thousand head, with other counties sending out only a few less.<sup>77</sup> Some of these flocks were driven to Missouri, Illinois, and Iowa. About 1842 Adam Beatty began urging the spread of sheep into the sparsely settled mountains of Kentucky.<sup>78</sup>

Even before the Civil War, Kentucky sheep were sent to Boston and New York, where their quality was greatly appreciated, since they were frequently full-blooded Southdowns, Leicesters, and Cotswolds.<sup>79</sup> Between ten and fifteen

thousand head were shipped annually before the War, and about twenty thousand head throughout the seventies. After the War there were more crosses with "native ewes," but the best quality sheep were killing at weights between 125 and 150 pounds. When dressed they averaged more than \$2 per hundred-weight above ordinary sheep. In 1877, at Brighton, Massachusetts, Kentucky lambs averaged eight cents per pound live weight in June and seven cents in July. Mature Kentucky sheep during the same period averaged six cents and ordinary New England sheep four and one-half cents.<sup>80</sup>

The principal supply of Kentucky sheep for the Boston market came from four counties, all in the limestone and bluegrass region. Kentucky mutton, from her long-wooled sheep, invariably appeared in the choice menus of the metropolitan hotels during this period.

Tennessee followed the example of Kentucky in developing mutton and lamb and, although it never gained as wide distribution, it did preserve an advantage over Kentucky by its earlier season. In 1841 an agricultural editor in Nashville boasted, "We already have as fine blooded horses, cattle, and sheep as are to be found in America or even Europe."<sup>81</sup> When the custom shifted from marketing wethers to marketing

<sup>73</sup> Gray, *History of Agriculture in the Southern United States to 1860*, Vol. 2:783.

<sup>74</sup> Colonel Lewis Sanders, "Recollections of," *Western Farm Journal*, Vol. 1 (1856):52.

<sup>75</sup> *Farmer's Register*, Vol. 1 (1833):147, 200; Vol. 6 (1838):705; Vol. 10 (1842):237.

<sup>76</sup> *Report of the Kentucky State Agricultural Society*, 1856-57, 127, 312, 314.

<sup>77</sup> *The Franklin Farmer*, Vol. 2 (1838):783.

<sup>78</sup> *The Dollar Farmer*, Vol. 2 (1843):77-79.

<sup>79</sup> Hayes, *Sheep Husbandry in the South*, 88.

<sup>80</sup> *Ibid.*, letter from Wm. Hayes, Jr., 88.

<sup>81</sup> *The Agriculturist and Journal of the State and County Societies*, Vol. 2 (1841):42.

lambs, Tennessee's facilities for late December and January lambings gave it a two to three weeks advantage in the early market. Before this time the Leicester and Cotswold breeds were used for crossing on the "native" Tennessee ewes, but after lamb became more popular the Southdown was used more frequently. Ever since the Civil War, lamb and mutton production has been one of the most profitable enterprises in this region, and farmers were frequently tempted to establish large flocks. However, the agricultural leaders in both states opposed this and urged the continuance of small flocks on each farm as part of the scheme of general management. "Farmers, as a rule, should not go into sheep husbandry to the neglect of other things. Let sheep be *one* of the products of the farm, but not the *only* product."<sup>82</sup>

The leading genius of the sheep industry in Tennessee both before and after the Civil War was the Honorable Mark R. Cockrill of Nashville, who handled both long-wooled mutton breeds and Saxon Merinos. He imported fine sheep from the best flocks of each breed, and crossed the two to get a larger animal than the Saxony, with more abundant fleece also. On his farm of five thousand acres near Nashville he ran nearly three thousand sheep as well as other livestock. In the mid-fifties he won a prize at the London World's Fair for the best Saxony sheep.<sup>83</sup>

#### SOUTHERN POPULATION SHIFTS

Sheep increased in numbers in the South between 1840 and 1850. The censuses of those years showed that the region southward from Virginia, Kentucky, and Missouri inclusive had 5,126,934 head in 1840 and 6,507,043 head in 1850. Approximately 45 per cent of southern sheep were in the states

south of Missouri, Kentucky, Virginia, and Maryland in 1840, while in 1850 nearly 49 per cent were there, and in 1860 more than 51 per cent. The principal factor behind this shift was the favorable price of wool at a time when prices for other agricultural products were low.

Gray<sup>84</sup> made an interesting calculation, based on the 1850 census, of the per capita density of sheep that year in different regions throughout the South:

Virginia Mountains .....	1.84
Missouri River counties .....	1.53
Kentucky Mountains .....	1.30
Kentucky Bluegrass .....	1.24
Northern Virginia .....	1.04
Missouri Ozarks .....	.99
Middle Tennessee .....	.90
Cumberland Plateau .....	.88
Valley of Eastern Tennessee .....	.86
Western Piedmont, N. C. ....	.75
Middle Virginia .....	.75
Southeastern Tidewater, N. C. ....	.70
Western Piedmont, Va. ....	.67
Central Piedmont, N. C. ....	.63
Valley of Virginia .....	.60
Northwest Georgia .....	.56
Northeastern Tidewater, N. C. ....	.56
Eastern Shore, Md. ....	.50
Tidewater, Va. ....	.40
Western Piedmont, S. C. ....	.36
Northwestern Maryland .....	.31

The foregoing averages show that only the Missouri River bottoms and the bluegrass regions of Kentucky and Tennessee could rival the mountain districts of the South in per capita relationship with sheep. In general, as the area studied was located farther from the mountains or in the tidewater regions, the per capita population declined.

During the decade 1850-60, the states of Virginia, the Carolinas, and Georgia

<sup>82</sup> Hayes, *Sheep Husbandry in the South*, quotes the Agricultural Commissioner of Tennessee in 1877, 91.

<sup>83</sup> *First Biennial Report, 1855-56*, State Agricultural Bureau of Tennessee, 44.

<sup>84</sup> Gray, *History of Agriculture in the Southern United States to 1860*, Vol. 2:876-918.



FIG. 29a—Remains of Mexican sheep corral in Oldham County, Texas, near Grapevine Creek in the Panhandle, at a point named "Rocky Dell" by Lieutenant A. W. Whipple in 1853 (p. 119). (Photo from Floyd V. Studer.)



FIG. 29b—Remains of an old house and sheep corral along Canadian River in the Texas Panhandle (p. 119). Note construction from flat stone instead of adobe. (Photo from Floyd V. Studer.)



FIG. 30a—Ruins of old ranch house of Colonel Jonathan T. Warner (p. 130). (Fred G. Anderson photo.)

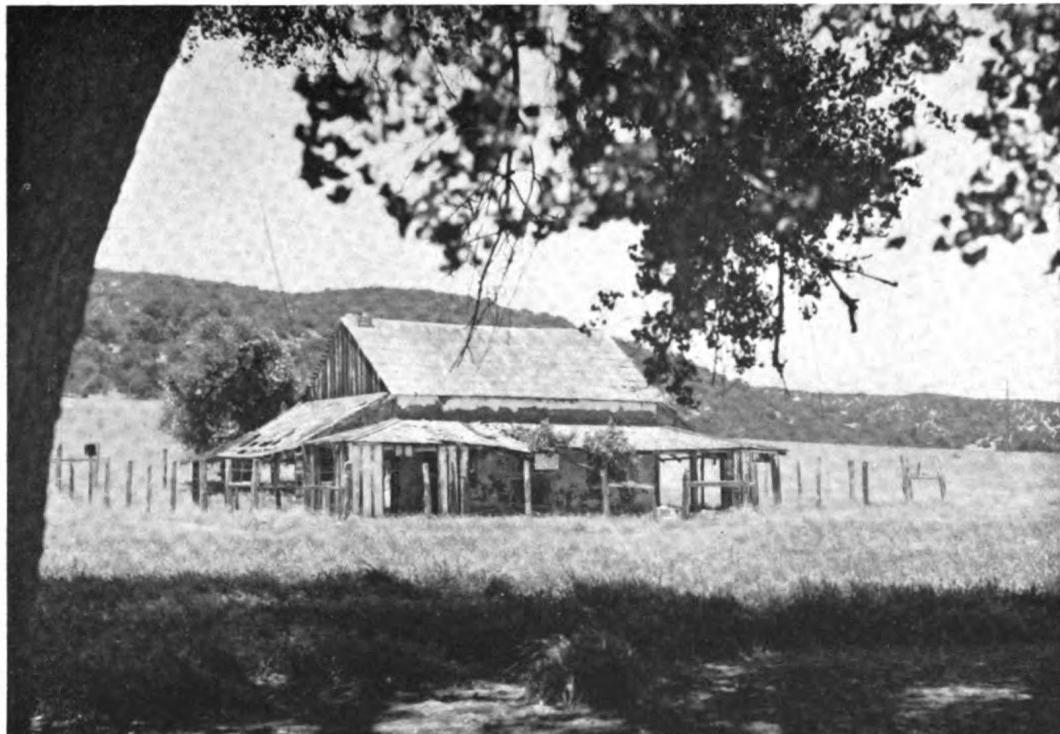


FIG. 30b—Depot at Warner Ranch on the old Butterfield Stage Lines from Los Angeles to Independence, Missouri. (Fred G. Anderson photo.)

decreased their sheep population about 415,000 head while the other southern states increased theirs a little less than 200,000 head. Hence the total in the states that ultimately entered the Confederacy, plus the border states of Maryland, Kentucky, and Missouri, but excluding Texas, was approximately the same the year before the War that it was in 1850—6,278,614 head against 6,507,043 head.

The general western shift in sheep population throughout the fifties was marked all over the country. Changes in total population were very slight. The South Atlantic States (Maryland to Florida inclusive) were losing only 14.7 per cent of the population (408,247 head) while the North Atlantic States (Maine to Delaware inclusive) were losing 20.3 per cent (1,621,043 head). Virginia's greatest loss came in 1862 when

West Virginia aligned itself with the North, leaving Virginia with only a third to a half million sheep. In the 1870 census, Virginia showed only 370,000 head as against 552,000 for West Virginia.

\* \* \*

Sheep were introduced into the South as early as into the North, but the inefficiency of slave labor, the rivalry of cotton, the attacks of wolves and dogs, and the ravages of parasites, gradually led flock husbandry into disrepute. Wool growing never proved essential to domestic comfort and the only district that developed permanence in the commercial industry was the bluegrass region. Here mutton production was conducted on a quality basis. In spite of these handicaps, however, the South entered the Civil War with one-third of the sheep in the United States.

*Flocks trailed to camp, descending dark!  
The herder's lamp, th' alert dog's bark!  
Last bleat o' lambs! Stars floating high!  
Soft sounds of night—The day is by!*  
—Kay Wood, "Toast to Wyoming Wool Growers"

♦ 8 ♦

## Sheep in the Southwest, 1800-1850

SHEEP were the principal item of agricultural production in the Southwest throughout the Spanish period. Each year the dust of the trail to Mexico City stirred leisurely to the tread of ovine hoofs. Even the Mexican War for Independence in 1821 left its rhythms undisturbed, and two hundred thousand to half a million head moved southward with the recurring seasons.

Yet hazard after hazard attended the industry. Sheep breeding in this vast region required adaptation to a cruel and barren environment. Drouth and storm exacted heavy tolls and Indian raids decimated both bands and herders. The grazing requirements of the flock brought constant exposure to the surprise attack at which the Indians were the world's masters. Navajos, Apaches, Comanches, and Utes practiced and perfected their war technique against the defenseless *pastores*. Only the dogged perseverance of the Spanish-American temperament permitted the success finally attained. The Mexican herder stuck to his locality until patience and tenacity assured his triumph. American victory in the war with Mexico failed to modify his practices, and the industry, as he had conducted it, gradually spread its routine over the entire western area of the United States.

\* \* \*

As the nineteenth century dawned, ranchos were found up and down central

New Mexico. From south to north they were grouped along the Rio Grande del Norte, while from west to east they spread from Acoma to the Pecos River, to the later Manzano and Tajique grants, and to the Pedernal Hills. Within the Rio Grande Valley, flocks of sheep and goats, and herds of cattle, abounded. A strong concentration of livestock owners was found throughout the entire south central part of the region. But in neither the southwestern nor southeastern sections was it possible for sheep to prosper because of the Apache menace, while a constant warfare in the northwest was waged with the Navajos during the half century following 1800.

Lieutenant Zebulon M. Pike was carried prisoner by the Spaniards, in 1807, down the Rio Grande into Mexico. In his journal,<sup>1</sup> he commented on the "numerous herds of sheep, goats, and asses," which he saw on March 5 near San Domingo, while ten days later he passed a caravan of fifteen thousand sheep bound southward "into the provinces." By March 21, he had become acquainted with Don Francisco Garcia of El Paso del Norte, owner of twenty thousand sheep and one thousand cattle. He reported that at least three hundred thousand sheep were traded annually into Mexico (provinces of Biscay, Sonora,

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<sup>1</sup>Zebulon M. Pike, *Exploratory Travels Through the Western Territories of North America*, 305.

and Sinaloa), and that they were usually valued at a dollar a head.

Characteristic of the southwestern Spanish sheep industry was the grouping of shepherds into villages. Most of the little settlements were walled, or otherwise protected, and the flocks were driven into them nightly. In some sections such tiny villages were known as "plazas." They provided protection from wild animals and enabled a stronger resistance against Indian raiders, whose daybreak attacks otherwise put the herders utterly at their mercy.

In the small villages sheep provided the main sustenance. They furnished wool, meat, and milk, as well as a curdled cheese, which was often substituted for bread in the mountain districts. In 1832 Gregg crossed the Sangre de Cristo Range from the sources of the Mora River to those of the Gallinas. Upon the elevated plain he found a large flock of sheep, while "the little adobe hovel at the foot of a cliff proclaimed it to be a *rancho*."<sup>2</sup> Here a swarthy *ranchero* tendered him goat's milk and some dirty "curdle cheese" from his ewes.

One realizes with difficulty the degree to which water controlled early development. In regions away from the main valleys, where the grass was good but moisture scarce, immense flocks were driven far out onto the plains for grazing, returning to water every two or three days. Gregg<sup>3</sup> noted that the shepherds loaded their burros with "guagas" (probably *aguagas* or gourds) filled with water, each time they set out for the plains. Some of these gourds were bulbous at both ends so that they could be tied and balanced in the middle.

Shepherds also supplied travelers with water. In 1831 Flint wrote that, in journeying from Chihuahua to the Atlantic Coast, his party seldom met with water more than once a day, "and that

furnished by trifling streams or springs; frequently from deep wells, where live a few shepherds to water their flocks and to sell water to passengers."<sup>4</sup>

Because of the long-time argument over the "destruction" of the range grasses, it is desirable to mention the livestock fattening grass of the Southwest, the grama. In 1832 Gregg commented:

By far the most important indigenous product of the soil of New Mexico is its pasturage. . . . The scanty moisture which suffices to bring forth the natural vegetation is insufficient for agricultural production. . . . The high prairies of northern New Mexico differ greatly from those of our border in the general character of their vegetation . . . being mostly clothed with different species of a highly nutritious grass called *grama*, which is of a short and very curly quality. . . . It cures upon the ground and remains excellent hay—equal, if not superior, to that which is cut and stacked from our western prairies. . . . The feeding of stock is almost entirely unknown in New Mexico, nevertheless the extensive herds of the country, not only of cattle and sheep, but of mules and horses, generally maintain themselves in excellent condition upon the dry pasturage alone during the cold season.<sup>5</sup>

#### NEW MEXICAN SHEEP KINGS

As the century began, holdings of sheep in the New Mexican settlements were quite extensive. Many of the largest owners lived in the southern section but had flocks scattered over most of the northern province. Possession of a quarter to a half million head was not uncommon. The greatest flock about 1800 was owned by the Spanish governor, Baca, who kept nearly two million head of sheep and had twenty-seven hundred peons always on the range with them.<sup>6</sup> The first governor under the Mexican

<sup>2</sup> Joseiah Gregg, *Commerce of the Prairies*, Part I (Vol. 19, *Early Western Travels*, edited by R. G. Thwaites), 252.

<sup>3</sup> *Ibid.*, 322.

<sup>4</sup> Pattie, *Personal Narrative*, 359.

<sup>5</sup> Gregg, *Commerce of the Prairies*, Part I; 298–99.

<sup>6</sup> Charles F. Lummis, *The Land of Poco Tiempo*, 19.

republic, *El Guero* (the blond) Chaves, held title to a million. Don José Leandro Perea, the sheep king of Bernalillo at the time of the American conquest, owned more than two hundred thousand head, which he put out on shares to his *partidarios*, in flocks averaging twenty-five hundred head.<sup>7</sup> Many owners had flocks of fifty to a hundred twenty-five thousand sheep.

In 1825, a Dr. Willard of St. Charles, Missouri, joined a caravan of thirty-three persons to New Mexico. He found a "simple, unostentatious, and noble hospitality" among these great sheep and cattle owners, whose families possessed both respectability and importance. A horse or carriage was always provided for him on such occasions, "an inexpensive gesture in a country where *ranchos* boasted six or eight thousand horses or mules, forty thousand cattle, and twice as many sheep."<sup>8</sup>

While conducting his survey of 1846, Lieutenant Abert visited the valley of the Rio Grande frequently, and reported that some of the *ricos* (rich men) had flocks as large as forty thousand head. "Wool is not considered very valuable and can be bought for four cents a fleece, or a proprietor will permit anyone to shear his sheep for one dollar the hundred."<sup>9</sup> Yet the Spanish and Mexican families that dominated New Mexico throughout its history originated their position, prestige, and wealth through their identification with the sheep or cattle business. Most prominently may be mentioned the Armijos, Bacas, Delgados, Jaramillos, Laybas, Lunas, Mirabals, Oteros, Pereas, Pinos, Romeros, Sandovals, Santistevans, Vijils and Yrisaris, while the names of Chaves, Gallegos, Gonzales, Martinez, and Ortiz are equally important.<sup>10</sup>

Many of these families felt that the annexation of New Mexico to the United States spelled their doom as flockmas-

ters.<sup>11</sup> Previous changes in government had meant that the winners applied the old policy "To the victor belongs the spoils," and they expected the United States to follow the custom. Large numbers of old Spanish and more recent Mexican grants ranged along the Rio Grande from the Santa Teresa above El Paso del Norte, upstream past Socorro and Sevilleta to the San Diego in the vicinity of Jemez, or to the San Fernando de Taos near the pueblo of Taos. Some of these grants belonged to the pioneer missions, but the majority of them had been given to Spanish colonists or their descendants. Confiscation was not in the American plan, however, and most titles which were valid under Spanish and Mexican sway were confirmed under the Mexican rule.<sup>12</sup> This was especially true of families that adjusted themselves quickly to American ways, and during the period 1850 to 1880 three families,

<sup>7</sup> Lummis, *The Land of Poco Tiempo*, 19.

<sup>8</sup> Pattie, *Personal Narrative*, 332, 340.

<sup>9</sup> Lieutenant J. W. Abert, *Report on Examination of New Mexico in the Years 1846-47*, Thirtieth Congress, first session. House Executive Document 41, 452. Hereafter called *Report on New Mexico*.

<sup>10</sup> Ex-Governor Miguel A. Otero, Santa Fe, New Mexico. Interview, March 25, 1939.

<sup>11</sup> Otero, Letter to H. C. Abbott, Las Animas, Colorado, September 8, 1938.

<sup>12</sup> Following the re-conquest of New Mexico in 1892, authority was withdrawn from the provincial and royal officials to issue grants for agricultural and pastoral lands. Titles had to be confirmed by the viceroy in Mexico City. Most of the good land up the Rio Grande passed into private ownership, as far north as Taos, as far east as the Upper Pecos, and as far west as the Cebolla Mountains and San Mateo (modern Mount Taylor). After the Mexican Revolution of 1821 the award of grants ran riot. Each governor took care of his friends without reference to previous titles, and the overlapping boundary lines became difficult for a surveyor to delimit or an owner to defend. One of the most famous disputes arose over the grant of a million and a quarter acres to Bartolomé Baca, in 1919, by the last Spanish governor, Facundo Melgares, in the Estancia Valley east of Albuquerque and the Manzano Mountains. In late 1845, Governor

the Armijos, Lunas, and Oteros, were reported to own from a quarter to a half million sheep each.

#### PARTIDARIOS

Nearly all of the early sheep families operated their own flocks with regular herders or through relatives, but all had, at times, a few *amigos* to whom they let out their sheep.<sup>13</sup> Lummis<sup>14</sup> states that society not only comprised two distinct classes socially—sheep owners and sheep tenders—but that four-fifths of the Caucasian male population were servants at five dollars to eight dollars a month. Abert wrote in 1846 that the "major portion of the people live not one bit better than the negroes on a plantation in our southern states; and the *rico* (rich man) of the village, like the planter, possesses everything; no one else owns a single sheep."<sup>15</sup>

Most of the poorer shepherds or peons were in debt to a *rico*. Usually they would fall under obligation to him when their tiny wages were insufficient to meet a family emergency—illness, births, or deaths—and he advanced them the necessary funds. Once obligated, they could not leave him until the debt was cancelled. In this manner many remained virtual slaves as long as they were productive, and thereafter the *rico* held no responsibility if he forgave the debt.

Among some small owners a similar near-peonage arose from the operation of the *partido* system. A large sheep operator would put a band out on shares with a non-owner or *partidario*, and the

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Manuel Armijo granted nearly a half million acres right in the center of the Baca property to a Spanish soldier, Antonio Sandoval. In 1874 the Baca titles were purchased by Manuel A. and Miguel A. Otero, while the Whitney interests of Boston purchased the Sandoval claims. The case wound up in the United States Supreme Court after the killing of three prominent men and the severe wounding of a fourth. For further details see Otero, *My Life on the Frontier*, Vol. 2:97-108.

latter gambled on being able to obtain enough of an increase to reward him for his labor and expense, or to establish himself in his own flock. His contract usually required him to return half of the increase and wool annually, to make good all the losses, and at the end of five years to repay the owner in the numbers, sexes, and qualities originally received. A bad storm, an Indian attack, predatory wolves or coyotes, and stampedes over cliffs or into rivers might decimate the flock and leave the *partidario* in perpetual debt. As helpers the *partidario* usually had two half-grown boys, two dogs, and two burros. Though his expenses were small, it is not surprising that the system helped perpetuate the peon class.

#### PASTORES ON THE RANGE

Reports and journals of various officers accompanying General Kearny and the Army of the West in 1846 refer principally to the smaller class of *ranchero*. En route from Bent's Fort to Santa Fe, Lieutenant Abert found numerous sheep *ranchos*. Five miles from the Mora River he

saw flocks of sheep, droves of horses, and large herds of cattle. These are guarded night and day by . . . *pastores*; they were miserably clad in tattered blankets, armed with bows and arrows; these and their big shepherd dogs constitute their sole defense, although they are subject to be attacked by Indians, and their flocks and herds by Indians and wolves.<sup>16</sup>

Near Tecolote in the vicinity of Las Vegas a great many sheep and goats were kept, the latter for their milk. Abert noted that the animals were herded all day and driven into the corral at night.

When no apprehension was felt concerning Indians, the *pastores* ven-

<sup>13</sup> Ex-Governor R. C. Dillon, Encino, New Mexico. Letter to author, October 4, 1938.

<sup>14</sup> Lummis, *The Land of Poco Tiempo*, 20.

<sup>15</sup> Abert, *Report on New Mexico*, 482.

<sup>16</sup> *Ibid.*, 443.

tured a considerable distance from the settlements. Typically the band would contain several thousand head under the care of a single shepherd, accompanied by three or four dogs trained to care for the sheep. When the night had to be passed on the plains, some suitable place was selected for a "temporary sheepfold," as Davis<sup>17</sup> termed the bedground, and for weeks the flock might travel under these conditions, covering wide areas of country to obtain the best pasturage.

#### NEW MEXICAN COMMERCE

The principal articles of commerce from New Mexico during the first quarter of the century included sheep, pelts, blankets, buffalo hides, dried meat, tallow, salt, and the common products of agriculture, such as corn, wheat, beans, and onions.<sup>18</sup> A considerable volume of trade in these commodities had existed at the close of the eighteenth century between New Mexico and the southern markets—especially the mining towns or such cities as Vera Cruz, Guadalajara, and Mexico City—and the volume continued until Mexico won its freedom from Spain in 1821. For a few years thereafter the trade diminished under the new government, then it grew rapidly until the outbreak of the war between the United States and Mexico. The annual movement southward averaged two hundred thousand head between 1815 and 1830,<sup>19</sup> as compared to three hundred thousand head when reported by Pike, but the peak year had seen half a million head travel the trail.<sup>20</sup> In 1839 Colonel Chaves alone drove seventy-five thousand sheep into Mexico from the Rio Grande Valley, while the remaining drovers handled three times as many more.<sup>21</sup>

This trade was quite profitable to the *ricos* of the northern country, who would buy sheep of the rancheros at

fifty to seventy-five cents per head and sell them at double to treble the price in the southern markets. Unfortunately the records do not show the costs of such trailing, so that the net returns are difficult to estimate, but their importance is indicated by the growing wealth of the Spanish land owners. Correspondingly, wool purchased at three to four cents a pound (often a complete fleece, as there was little more than a pound to a fleece) brought more than fifteen cents a pound on the Missouri frontier, despite its inferior quality.

Lieutenant Emory<sup>22</sup> quoted a census showing that New Mexico had a population of one hundred thousand people just before the American conquest. The province was divided into three departments for governmental purposes, but the southern section was richer than the central, and the latter richer than the northern. Sheep were found in all divisions, but the most were in the south, where the human population totaled forty-eight thousand inhabitants. Many of them were wealthy and in possession of farms, sheep, goats, cattle, horses, asses, mules and gold dust.

#### ARIZONA

During the period 1775 to 1825 several great *haciendas* were established by Spanish families in the valleys of the Santa Cruz, San Pedro, and Sonoita rivers in what is now southern Arizona,

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<sup>17</sup> W. W. H. Davis, *El Gringo, or New Mexico and Her People*, 74.

<sup>18</sup> Pattie, *Personal Narrative*, 349.

<sup>19</sup> Gregg, *Commerce of the Prairies*, Part I, 323.

<sup>20</sup> *Ibid.*

<sup>21</sup> R. N. Richardson and C. C. Rister, *The Greater Southwest*, 365.

<sup>22</sup> Lieutenant W. H. Emory, "Notes of a Military Reconnaissance from Fort Leavenworth in Missouri to San Diego in California," *Executive Document, No. 41, 30th Congress, 1st Session*, (1848) :35.

under the protection of the presidio at Tubac. The most famous was the enormous San Bernardino Rancho, west of Guadalupe Pass and just south of the modern Mexican boundary line at the southeastern corner of Arizona. This was a strongly fortified establishment built like a great feudal castle, from which the sentries could keep watch for the raiding Apaches. As early as 1773 Captain Juan Bautista de Anza had used this *rancho* as his headquarters in a campaign against this tribe. The original buildings covered a space of two acres, enclosed by a high adobe wall, and were elevated about twenty-five feet above the valley.<sup>23</sup> The *rancho* boasted tremendous herds of cattle and flocks of sheep, but the latter had turned feral under the incessant Apache attacks.

A second important *rancho* was the Babacómari, a Spanish grant of thirty-five thousand acres some eighty miles southeast of Tucson in the high and attractive valley of Babacómari Creek. As a fortified settlement it fell little short of San Bernardino, its ranch house having a protective bastion and sentry tower on the corner facing Tubac and another on the corner toward the San Pedro River.<sup>24</sup> Its records run back to 1796, and it was essentially a cattle ranch, having only small numbers of sheep until after the Mexican War.

About the close of the eighteenth century, three other extensive ranches were established under Spanish grants—the Sopori, Raventón, and Arivaca. During the quarter of a century centering around 1800, there was a period of peace between the Spanish and Indians, and these *ranchos* became interesting outposts of Spanish civilization. Sopori included twenty square leagues of land and was the largest of the three. Its grasses were well stocked with sheep and cattle until its fortified headquarters, a

great stone house six miles from Tubac, fell before ferocious Apache forays.

Raventón was on the Santa Cruz River nine miles north of Tubac, and was primarily devoted to cattle, but as long as it was under Spanish control, it, too, had flocks of sheep.

The Arivaca grant was made in 1802 to Tomás and Ygnácio Ortiz, and was about fifty miles southwest of Tucson. It was quite extensive, seventeen thousand acres, but it became better known for its mines—gold, copper, and lead—than for its livestock. None of these had flocks of sheep at the time of the Mexican War, and such sheep as persisted in Arizona were in the hands of the Pima, Navajo, Moqui, and Papago Indians.

#### TEXAS

The drive that had placed Spanish missions on the Texas frontiers exhausted itself before 1800 and the agricultural projects of the priests were withdrawn to the vicinity of the Rio Grande. Over in the east, in the settlements included in the Department of Nacogdoches, population continued to increase, though sheep disappeared. The Indian menace had been removed, but neither sheep nor goats flourished in comparison with cattle, swine, horses, and mules.<sup>25</sup> In 1834 there were fifty thousand head of cattle and sixty thousand head of swine, but not a sheep nor goat was mentioned. Along the coast was Stephen Austin's settlement, called the Department of Brazos by the Mexican government. It, too, reported no sheep, but had twenty-five thousand cattle and fifty thousand

<sup>23</sup> J. R. Bartlett, *Personal Narrative of Explorations and Incidents in Texas, New Mexico, California . . .* Vol. 1:255-57.

<sup>24</sup> Frank C. Lockwood, *Pioneer Days in Arizona from the Spanish Occupation to Statehood*, 98.

<sup>25</sup> John J. Linn, *Reminiscences of Fifty Years in Texas*, 101-2.

hogs. Most of them were marketed at Natchitoches in Louisiana.<sup>26</sup> Other records prove, however, that there were sheep in Austin's settlement.

In the third department, Bexar, sheep were scarce, but some five thousand were still present, largely on the mission lands near San Antonio. However, this department was declining rapidly in population. In 1806 there were 6,400 white citizens; in 1834, only 3,400.<sup>27</sup>

Between 1834 and 1836 the attacks of the wild Indian tribes forced an abandonment of the *ranchos* between the Nueces and the Rio Grande. Great herds of semi-wild cattle ranged the territory, impossible to handle until run constantly for twenty-four hours and then driven at a slower pace for two or three days. Sheep, of course, could not survive under such wild conditions and the bands that were left were driven slowly back toward San Antonio.<sup>28</sup>

After the battle of San Jacinto (April 21, 1836), many ranches along the Rio Grande had to be abandoned on both sides of the river, due to the lawless raiding by Mexicans and Texans. Sheep and cattle, grazing on the old *ranchos*, were appropriate prey for anyone, and it was not long until the sheep south and southwest of San Antonio were pretty well exterminated. Most of the Mexicans living in this region had owned a few head, but for a time almost every domestic animal in the area was stolen either by Indians or by white bandits (so-called "adventurers").<sup>29</sup>

Following the Texas War for Independence, several of the members of Stephen Austin's colony sent back to Vermont for Merinos. Their improving effect on the light-shearing Mexican *churros* was immediate. Instead of two-pound fleeces, six to eight pounds of wool were shorn, and instead of lambs producing eighteen-pound carcasses at slaughter and wethers producing twenty-

five to thirty pounds, there were fat sheep yielding carcasses which averaged thirty-five to forty pounds. The first step toward modernizing the Spanish sheep of the Southwest came through this enterprise.

A new influence appeared in the state when Prince de Solms brought his German colonists to Indianola, Texas, in 1845, and established them on the Guadalupe River in Comal County. New Braunfels was their capital, and they introduced German sheep which were crossed on the Mexican stock. Soon a woolen mill was established, where they wove both woolen and cotton fabrics, and manufactured surplus clothing goods and blankets for commercial use. Many of them accumulated fortunes, some by becoming leaders in the westward movement of sheep culture after 1850. Sheep raising was profitable in Texas. Linn states that cattle were earning 33 1/3 per cent on the capital invested, and that sheep, when given careful attention, yielded even greater returns.<sup>30</sup>

#### PANHANDLE PLAZAS

Though the Mexican shepherds brought their flocks into the Plaza Larga between Tucumcari and the Canadian River for a long series of years,<sup>31</sup> the *pastores* were not the pioneers of the *llana estacado*. These "staked plains" were opened up by Indian traders, *comancheros*, and buffalo hunters, *ciboleros*. Even before the American Civil War in

<sup>26</sup> Linn, *Reminiscences of Fifty Years in Texas*, 100.

<sup>27</sup> *Ibid.*, 97.

<sup>28</sup> John Henry Brown, *History of Texas, 1685-1892*, Vol. 2:138-39.

<sup>29</sup> Linn, *Reminiscences of Fifty Years in Texas*, 310.

<sup>30</sup> *Ibid.*, 367.

<sup>31</sup> Grant Foreman, *A Pathfinder of the Southwest, Whipple's Diary of 1853-1854*, 94-95.

1861, the *ciboleros* were following down the Canadian River, along Trujillo and Tierra Blanca creeks, near Salinas Lake and at Las Tecovas Springs. Here their camps were established, bison slaughtered, and the meat dried or salted. This "*charqui*," and the hides, went back to the New Mexico settlements, but there was little profit in the trade. Much more accrued when the *cibolero* preyed on the flocks of the wandering *pastores*, and sold his spoils to the *comanchero*. The latter also had difficulty in making a living, and the barter possible with sheep and cattle, carefully exchanged to Indians away from the *plazas*, enabled the *comanchero* to stay in the country and to protect his location and trading post. Gradually these drifters became the first permanent settlers, and the unfortunate shepherds helped to found the numerous Mexican *plazas*, whose ruins today are blanketed under the dust of the Great Plains.<sup>32</sup>

The *plazas* usually included only a few houses. Most of them were built of thin flat stone, broken away from the layers of sandstone ("cap-rock") in modern Oldham County. The stones were arranged in the fashion of dry masonry, but were set in adobe mortar. Today many of the building walls still stand, four or five feet high, and near them are the ruined fences of old sheep corrals, also built of sandstone.

Settled at different dates, beginning in the early 1870's, the last *plazas* were occupied for nearly a half century. Tascosa, the famous cowtown of the Panhandle in the boom days of the cattle industry, was originally a Mexican sheep *plaza* and trading post called Atascosa. Ruler of the old town was Casimero Romero, a Mexican who had grown wealthy from the contraband of the *comanchero* trade. Despite minor doubts as to his probity, Romero left such a strong character-impression be-

hind him that a railway station, near the Texas-New Mexico border, bears his name today. At least a dozen of these *plazas* can be located with considerable definiteness, dotted at intervals over the rough lands around the streams.<sup>33</sup> Old Sandoval, last of the Mexican sheepmen, remained at his plaza until 1887.

Now little is left of the numerous *plazas*, which bore such musical names as Tecolaté, Chavez Salinas, Gallinas, Juan Domingo, Joaquin, Ortega, Sandoval, Mariano Montoya, Valdez, and Ventura. . . . The sod roofs sifted down to the floor; rabbits and ground squirrels burrowed under the foundation. Shifting sands of streams, long years in the sun and wind, have wrapped the plazas in silence and ruin.<sup>34</sup>

#### SHEEP WITH THE ARMY

President Polk had long cherished a desire to acquire New Mexico by peaceable methods, but when the Mexican

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<sup>32</sup> Edna Kahlbau, *Amarillo Sunday News and Globe*, Golden Anniversary Edition, August 14, 1938, Section C, 5.

<sup>33</sup> Kahlbau, *Ibid.*, locates plazas as follows:  
Salinas Plaza—Section 66, Block B-7, Oldham County;  
Trujillo Plaza—Section 13, Block B-5, Oldham County;  
Valdez Plaza—Section 111, Block 47, Oldham County;  
Ortega Plaza—Section 68, Block G-M, Oldham County;  
Chavez Plaza—Section 33, Block B-7, Oldham County;  
Tecolaté Plaza—On Matador Ranch, near New Mexico Line;  
Agriceta Sandoval—On Tierra Blanca Creek, Deaf Smith County;  
Tecovas Springs Plaza—Tecovas or Sanborn Springs, Frying Pan Creek;  
Juan Domingo Plaza—Section 83, Block 5, Oldham County;  
Ventura Plaza—West Side of Juan Domingo Plaza;  
Casimero Romero Plaza—"Hogtown," Tascosa (old town) section east of original town-site;  
Atascosa Plaza—Atascosa Creek, exact location of Tascosa (old town);  
Joaquin Plaza—Possibly same as Tecolaté (south side Canadian River, Oldham County).

<sup>34</sup> *Ibid.*

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general, Mariano Arista, clashed with General Zachary Taylor's forces east of the Rio Grande, the time for action had arrived. On May 13, 1846, the day that war was declared, the War Department took steps to protect the Santa Fe Trail and to capture the city of Santa Fe. Three months later, August 18, the city was occupied. By mid-September, General Stephen W. Kearny had started his "three hundred wilderness-worn dragoons in shabby and patched clothing,"<sup>35</sup> on the long march to San Diego, while behind him Captain Philip St. George Cooke, with the "Mormon Battalion," was breaking a wagon road to the coast, and Colonel Doniphan was en route to Chihuahua with his Missouri volunteers.

All of these moves required commissary supplies, and the meat ration had to be self-transportable—sheep, or cattle, that could march with the troops. To many commanding officers this raised the question of the relative value of the two species in supplying an army on the march. At first thought meat would seem more easily controlled in cattle than in sheep, and cattle should have the ability to cover more country. Yet the *conquistadores* and several early expeditions of the American Army carried flocks of sheep as reserves, despite the fact that the average soldier preferred beef.

Sheep had many advantages on the route. Wherever grass was available they grazed as they marched, and although they would not reach the camp ground as early as cattle, they were ready, after watering, to bed down and rest. Cattle, on the other hand, had to spend most of the night on their feet, hunting their pastureage. They practically never got their fill so they could lie down and let their feed be converted into flesh. During a storm the cattle would pass through

the sentry lines, often crazed with fear of the lightning and thunder. Sheep would merely drift before it, bunched together and easily recovered. When feed or water was scarce, the cattle would scatter all over the horizon in search of it, and many morning hours were spent collecting them and getting the trail herd under way. Captain Cooke complained of this difficulty on numerous occasions.

Thirsty cattle would smell water from great distances, and no power of the herders could retard them. With sheep the flocking instinct remained supreme over thirst, and although the flock might travel faster, it did not scatter. If predatory animals or marauding Indians surprised cattle at night the herd usually stampeded and scattered to points where the robbers could drive them off with impunity. Sheep, however, were accustomed to human care, and when surprised ran instinctively toward camp<sup>36</sup> or toward their herders for protection. When camp fires burned, it sometimes happened that the rear of the frightened flock forced the leaders right into the blaze. Had soldiers possessed the appetite for mutton which they exhibited for beef, many difficulties of supply would have been ironed out along the California, Santa Fe, and Oregon Trails.

All three of the columns moving out of Santa Fe made use of sheep in their commissary, although Kearney had to move so much faster he drove none with him. After his column left for California, Doniphan's expedition to capture Chihuahua started down the Rio Grande toward Paso del Norte. About fifteen miles out of Santa Fe they passed Delgado

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<sup>35</sup> Philip St. George Cooke, *Conquest of New Mexico and California*, 69.

<sup>36</sup> Flint, *Diary*, 53.

Rancho, which had long been noted for its flocks, and near La Joya they purchased a thousand sheep for ration supply to be delivered from Tomé.<sup>37</sup> Close to Fray Cristobál, about 9 miles from the edge of the Jornada del Muerto and 175 miles out of Santa Fe, Gibson came on commissary agents of Colonel Doniphan's column who were "topping out" one thousand fat sheep from a flock of four thousand.<sup>38</sup>

Whether these troops had eaten mutton in the "states" meant little. They developed a taste for it before leaving Santa Fe. As the Army of the West marched from Las Vegas toward the Spanish capital, Lieutenant Gibson noted large flocks of sheep and goats at all the *ranchos*<sup>39</sup> and stated that the mutton which they were able to purchase was both of good quality and decidedly palatable. At a *fandango* at Pruett's Hotel in Santa Fe on August 21, the officers were served with fried chicken, hashed beef, and both boiled and baked mutton.

The importance of mutton in the New Mexican menu was overwhelming. On September 2, Gibson recorded both mutton pie and roast mutton at the same meal.<sup>40</sup> On September 4, the soldiers had "roast mutton, peach and custard pie, and rich and juicy grapes," and they advertised for Mexicans who would supply the army with beef and mutton twice a week until the following June, alternately delivering eight hundred pounds of each meat. The troops also had boiled and baked mutton for dinner on September 20, with grape and custard pie, and rejoiced that they had bought their sheep alive and had done their own slaughtering. For the preceding fortnight, the natives had been selling them goat meat as mutton, which they "found not so good."<sup>41</sup> When the Missouri troops reached El Paso del

Norte on October 28, Gibson reported that the commissary had bought mutton in the public market, butchered and dressed, at a dollar and a half a carcass. At the same time bacon was forty cents a pound.

Kearney was an old hand at using sheep for military supplies. On May 25, 1845, Palmer, en route to Oregon, wrote: "Early this morning we were passed by Colonel Kearney and his party of dragoons, numbering about three hundred. They have with them nineteen wagons drawn by mules and drive fifty head of cattle and twenty-five head of sheep.<sup>42</sup>

Cooke, with the Mormon Battalion,<sup>43</sup> detailed his experiences. On October 19, 1846, his command of 397 men moved southward from Santa Fe and down the valley of the Rio Grande. About seventeen miles below Socorro, they reached their first band of sheep, some three hundred head, which Captain Cooke records as being "very poor—about half

<sup>37</sup> Bieber, *Southwest Historical Series*, Vol. 3: 290.

<sup>38</sup> *Ibid.*, 294.

<sup>39</sup> *Ibid.*, 197, 204.

<sup>40</sup> *Ibid.*, 230.

<sup>41</sup> *Ibid.*, 241.

<sup>42</sup> Joel Palmer, *Journal of Travels Over the Rocky Mountains, to the Mouth of the Columbia River, Made During the Years 1845 and 1846* (Vol. 30, *Early Western Travels*, edited by R. G. Thwaites) :44–45.

<sup>43</sup> The Mormon Battalion was organized soon after the outbreak of hostilities, with the triple purpose of evacuating Illinois and Missouri of members of the Church of the Latter Day Saints, of providing government assistance in moving them westward, and of establishing them with arms in California to defend the Mexican frontier. After many vicissitudes, they arrived in Santa Fe on October 9 and 12th in two detachments, and Captain Cooke took command of them on October 13, the mission assigned by General Kearny being "the task of opening a wagon road to the Pacific."

of them lambs, almost worthless."<sup>44</sup> The next day, near Luna village, the expedition passed a flock of many thousand sheep, and Lieutenant Smith was sent out with one hundred dollars to buy eighty head to make up for the unsatisfactory lambs first purchased. Furthermore, three Mexican sheepherders were hired to take care of 380 sheep, while the mules, beeves, and oxen were left to the care of the butchers by day and the sentries by night.

On November 3, Captain Cooke noted that it took a cow and twelve lambs to provide the evening meat ration for the command, "the lambs, not the smallest I fear, weighed eighteen pounds." Two days later an ox threw its shoulder out of joint, but even though it dressed four hundred pounds, it took sixteen lambs to finish out the ration. By this time the question of supply had become so important that the captain sent fifty-five ill and incapacitated men back to Santa Fe, reducing his number of effectives to 342 individuals.

Captain Cooke made many interesting observations on the conditions affecting the flock during the long march. Most important was his search for feed—bunch grass and then grama grass occurring in cured condition down the Rio Grande and across New Mexico, while buffalo grass in increasing amounts was discovered as he neared the juncture of modern New Mexico with Arizona and Old Mexico. After crossing Guadalupe Pass, the grama grass reappeared and the famous "Battle with the Bulls"<sup>45</sup> occurred at San Bernardino Ranch. The country again became barren as they moved beyond Tucson toward the Gila River, and thereafter grass and feed became more and more sparse until desert prevailed. When the Colorado River was reached, 130 sheep still remained, even though Vallecito, one hundred miles beyond the crossing of the Colorado and

on the western edge of the Imperial Valley, brought the first grass of consequence. Mules, oxen, and beef cattle died from starvation, exhaustion and thirst, so that the numbers were a mere fraction of the original animals, but relatively few of the sheep were lost from these causes. Apparently they gained weight going over the Continental Divide, and although they showed the ravages of the desert *jornadas* until they presumably merited Captain Cooke's epithet of "poor," they were still good enough that he could exchange his remaining eighty sheep for twenty fat beeves, at Warner's Ranch in the valley of San José, south of modern Temecula.

But sheep did not take part in the Mexican War through the march of the Army of the West alone. Lieutenant Colonel John C. Fremont, with the "California Battalion," composed of mounted riflemen, Indians, and servants to the number of 428, started on December 3, 1846, from a camp ten miles south of the mission of San Juan Bautista in Upper California.<sup>46</sup> The battalion's meat ration consisted of thirteen cattle per day, slaughtered from herds driven along with them, a per capita daily supply which Bryant<sup>47</sup> estimated at ten pounds per man.

At the mission of San Miguel, Bryant noted that the buildings had gone into decay, but that an Englishman was living there and maintaining a large flock of sheep. "We feasted on California mutton, sheep being more abundant than cattle at this mission." As they were marching only fifteen miles a day

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<sup>44</sup> Bieber, *Southwest Historical Series*, Vol. 7 (1938) :84, includes Cooke's "Journal."

<sup>45</sup> Edward N. Wentworth, "The Battle With the Bulls," *The Cattleman*, 27 (10) : (March, 1941), 61-65, assembles information on the incident.

<sup>46</sup> Edwin Bryant, *What I Saw in California*, 347.

<sup>47</sup> *Ibid.*, 350.

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on horseback, and as their *caballada* was being depleted, they were ordered to turn their mounts, with bridles, saddles, and packs, into the herd driven by the horse guard and to march on foot. Hence a number of sheep were driven with them as far as the mission of San Luis Obispo. Again at the missions of San Buenaventura and San Fernando, small flocks of mutton were provided for one or two days' rations.

#### THE SPANISH CHURRO

The quality of sheep throughout the Spanish provinces was not high. Two types of Spanish sheep existed—the low quality variously called *churros*, *chauros*, *chourrus*, or *churrus*, and the Merinos. The *churros* were definite "scrubs," yielding one to two and a half pounds of coarse, open wool and weighing from fifty-five to eighty pounds at maturity. Rams were horned, having two to four horns normally, with five or six horns occasionally. Gregg says, "The sheep there are also remarkable for their horny appendages, which frequently branch out into double or triple pairs, giving the head a very whimsical or grotesque appearance."<sup>48</sup> Most ewes were hornless but even they possessed multiple horns in a percentage of cases. Alexander Forbes states:

The sheep . . . in all parts of Spanish America are of a bad breed and their wool of the very coarsest quality; the whole seem to be of exactly the same kind. It is strange that, while in Spain the finest wooled sheep in the world—the Merinos—have so long existed, an inferior breed, producing the coarsest wool, should have been carried to their colonies. Perhaps the propagation of the Merinos, like the grape, was discouraged or prohibited in the Americas, in order, as was the policy of the mother country, to give the monopoly to the flocks of Estremadura, as well as to the vineyards of Catalonia. . . . It might be thought that in the tropical climates, the temperature and other circumstances may have changed the quality of the fleeces, but in Upper California the latitude nearly corresponds to that of Estremadura, and in some parts exactly so; yet the quality of the wool is equally bad

there as in the equatorial latitudes of Peru and Colombia.<sup>49</sup>

Gregg confirms Forbes saying:

The sheep of New Mexico are exceeding small, with very coarse wool, and scarcely fit for anything else than mutton, for which, indeed, they are justly celebrated . . . the flesh of the sheep is to the New Mexican what that of the hog is to the people of our western states—while pork is but seldom met with in northern Mexico.<sup>50</sup>

Some authorities prefer to think that the American *churros* were descendants of the Merino, neglected in breeding and subjected to extreme vicissitudes of environment. This seems doubtful, although it is possible. The most effective selection was "natural selection" and, under the conditions of handling, the survival was that of the fittest. These sheep had to learn to hunt feed and water, to resist storms, to escape predatory pumas, coyotes, and bears, and in general to retain a preponderance of traits having little to do with carcass or fleece values. Degeneration would be expected in any type of animal handled under similar conditions. Davis believed<sup>51</sup> that the New Mexican farmers had retained the original stock of sheep and had made no effort to improve the breed. He felt there had not been enough encouragement at home to warrant the importation of a better class of sheep. Their flesh, he asserted, was finely flavored, and the principal article of food for the inhabitants, but the handicap of poor wool, which brought only four to five cents a pound, held back the breeding.

Sheep in all the Spanish dominions in the Americas were of this inferior type

<sup>48</sup> Gregg, *Commerce of the Prairies*, Part I, 324.

<sup>49</sup> Forbes, *A History of Upper and Lower California*, 173.

<sup>50</sup> Gregg, *Commerce of the Prairies*, Part I, 324.

<sup>51</sup> Davis, *El Gringo, etc.*, 74.

and the number of Merinos very few. It is most logical, therefore, to think that the great majority of imports from Spain were of the lower grade sheep.

#### INDIAN TROUBLES

Previous to the American occupation, the region from the Pecos River as far west as Arizona was overrun by wild tribes of Indians. Comanches, Navajos, and Apaches—as well as more distant nations—obtained their chief subsistence by raiding the flocks and herds of the Spaniards, Mexicans, and Pueblo Indians.<sup>52</sup> The Navajos, however, possessed a small degree of skill in caring for domestic animals. Their flocks, both sheep and goats, were reported by Gregg<sup>53</sup> as being somewhat better in quality than those tended by the Mexicans. Pattie, in 1827, reached a good-sized Navajo village fifty miles west of Taos. Its foundation animals had been stolen from the Spanish and he observed that they raised "a great abundance of grain and manufacture their own wool much better than the Spanish."<sup>54</sup> Elsewhere he reported that the Mescalero (Apache) Indians had

plenty of blankets of their own manufacturing, and constituting a much better article than that produced by the Spaniards. They dye the wool of different and bright colors and stripe them with very neat figures.<sup>55</sup>

Whether the Navajos were better breeders, as Gregg seems to imply, or whether the most vigorous individuals were best able to survive an Indian raid, leaving the weakened ones for the Mexicans to recover, is difficult to determine. Abert described the technique of a Navajo raid in 1846, and it would seem that the sheep left behind would have been the runts and cripples unable to keep pace with the main flock.

This morning we received notice of an incursion of the Navajos a few miles below us (south of Albuquerque). The *pastores* left their flock and fled, while a large body of Indians, rushing

down from the mountains where they had secreted themselves during the night, devastated the whole valley, killing all the humankind they met, and sweeping off the flocks and herds of the Mexicans. No less than five thousand sheep were carried off within twenty miles of the great city of Albuquerque.<sup>56</sup>

In 1828 while traveling above the juncture of the Rio Puerco and the Rio Grande del Norte, Pattie wrote,

We began to ascend the river (del Norte) through a rich and delightful plain on which are to be seen an abundance of deserted sheep folds and horse pens, where the Spanish vachers once kept their stock. The constant incursions of the Indians compelled this peaceful people to desert these fair plains. Their deserted cottages inspired a melancholy feeling. . . . This is one of the loveliest regions for farmers that I have ever seen, though no permanent settlements could be made there, until the murderous Indians, who live in the mountains, should be subdued.<sup>57</sup>

The terror incited by the Navajos in the little Mexican villages is difficult to realize. Near Sevilleta in 1846, Abert saw numerous bands along the river which the shepherds had driven in from the mountains, due to the fear of the Navajos:

The whole country was in a state of alarm and the road was lined with *voluntarios* hurrying to the rendezvous. At Sabino we found that many had already assembled, armed with muskets and *escopettes*, with cartridge boxes that were buckled around the waist full of death-dealing lead and powder. After passing through the town we still found the people gathering together in little groups, the valley still full of sheep and goats, so that the hills resounded with their bleating.<sup>58</sup>

Something of the brutality of these Indian-Mexican relations is reported by Pattie.<sup>59</sup> About ten o'clock in the eve-

<sup>52</sup> Gregg, *Commerce of the Prairies*, Part II (Vol. 20, *Early Western Travels*) :75.

<sup>53</sup> *Ibid.*, 71.

<sup>54</sup> Pattie, *Personal Narrative*, 144.

<sup>55</sup> *Ibid.*, 166.

<sup>56</sup> Abert, *Report on New Mexico*, 476.

<sup>57</sup> Pattie, *Personal Narrative*, 160.

<sup>58</sup> Abert, *Report on New Mexico*, 495.

<sup>59</sup> Pattie, *Personal Narrative*, 77-84.

ning of November 8, 1824, an express rider came galloping into Santa Fe from the Rio Pecos, along which many of the best Spanish families had their country seats and ranching headquarters. He reported that a large body of Indians had either robbed or murdered several families. One American woman had been taken prisoner, in company with four Spanish women.

At sunrise the governor requested Pattie's party to join with four hundred mounted Mexicans to retaliate against the Comanches. On the thirteenth the spot was reached where the murders and robbery were committed, and at noon of the fifteenth they overtook the Indians entering a gap in the mountains. Pattie's father was placed in command, and the Americans outflanked the Indians, riding around them, while the Mexicans remained in the rear to cut off their escape.

For an hour and a half the Americans waited behind screens of rocks and trees, then the Indians made their appearance, with the captive women, stripped of all clothing, driving a large drove of sheep and horses. Immediately behind followed the Indians. When the latter were within thirty or forty yards of the Americans the order to fire was given. The women ran toward them at the report of the guns but three of them fell instantly, pierced by the spears of the savages. Young Pattie and another man rescued the two remaining women, although the second man fell in the attempt. Unfortunately, the four hundred Mexicans were driven back by the retiring Indians, and the Americans had a long battle before they overcame the enemy and withdrew. "We drove the sheep, which escaped the balls, before us." However, after traveling all night, the flocks tired out and they were obliged to leave them.

In 1834 Gregg pointed out the fact that the *ganado menor* (sheep and goats

in general) had of late been very much reduced in numbers:

having suffered to a deplorable extent from the frequent inroads of the aboriginal "lords of the soil" who, every now and then, whenever hunger or caprice prompts them, attack the *ranchos*, murder the shepherds, and drive the sheep away in flocks of thousands. Indeed, the Indians have been heard to observe, that they would long before this have destroyed every sheep in the country, but that they prefer leaving a few behind for breeding purposes in order that the Mexican shepherds may raise them new supplies!<sup>60</sup>

When General Kearny's column reached Las Vegas on August 14, 1846, Lieutenant Gibson reported large flocks of sheep and goats in the hills,<sup>61</sup> but indicated that the town had a "ruinous and dilapidated appearance," having no doubt seen better days before the incursions and marauding of the Indians had destroyed the enterprise of the people. Yet Las Vegas was then only twelve years old, its first settler having arrived in 1835.<sup>62</sup> "Their flocks are permitted to degenerate, their houses to molder, and their farms to go to decay, having no protection against the Comanche, the Ute, the Pawnee, and other tribes who frequently make inroads upon them, drive off their stock, and carry their women into captivity."<sup>63</sup>

Even after the Americans were in New Mexico, the Mexicans reported a raid by Navajos on San Miguel, carrying off a large flock of sheep.<sup>64</sup>

Not always did the conflict finish in favor of the Indians, however. Colonel Manuel Chaves,<sup>65</sup> the Mexican hero, was at his lambing camp at Salada, forty miles east of the Rio Grande, when a

<sup>60</sup> Gregg, *Commerce of the Prairies*, Part I, 324.

<sup>61</sup> Bieber, *Southwest Historical Series*, Vol. 3: 193.

<sup>62</sup> Otero, Letter, February 7, 1939.

<sup>63</sup> Bieber, *Southwest Historical Series*, Vol. 3: 194.

<sup>64</sup> *Ibid.*, 247.

<sup>65</sup> See Biographical Appendix, Colonel Manuel Chaves.

messenger brought word that two hundred raiding Apaches were headed in his direction. Assembling forty men, mostly noncombatant *pastores*, the Colonel managed to drive them off with the loss of only a few horses.<sup>66</sup>

Another time a large band of Navajos descended on the Rio Grande settlements and drove off fifty thousand sheep. Don Manuel, his half-brother, Ramon Baca, and fourteen picked men overtook them at Ojo de la Monica, routed them and recovered the sheep. Ramon Baca stayed behind at Fort Craig, and next morning the group that then numbered only fifteen men found itself entirely surrounded by Indians. All day the fifteen men fought off the swarming savages, each posted by a tree, and when night fell Chaves had fired eighty of the eighty-two bullets with which he started the day. Each bullet used had accounted for an Indian or a horse. At nightfall Ramon Baca arrived with reinforcements, rescuing the Colonel and the only other survivor and recovering the sheep for return to their owners.

Some statistics exist measuring the extent of the depredations. Calhoun reported to Congress<sup>67</sup> that the losses of livestock in the counties of Santa Ana and Bernalillo during the years 1846-50, not including government-owned animals, totaled 150,231 sheep, 1,234 cows, 893 horses, and 761 mules and burros. Bartlett<sup>68</sup> gave more comprehensive figures for the same period, which differed slightly from Calhoun's:

Counties	Sheep	Cattle	Horses	Mules
Santa Fe.....	16,260	894	267	570
Taos.....	17,080	5,600	1,764	1,032
Rio Arriba.....	43,580	2,382	658	1,960
San Miguel.....	50,000	21,000	3,000	7,000
Santa Ana and Bernalillo.....	154,915	1,302	987	749
Valéncia.....	171,558	1,463	372	376
Total.....	453,293	31,581	7,050	12,887

#### CALIFORNIA

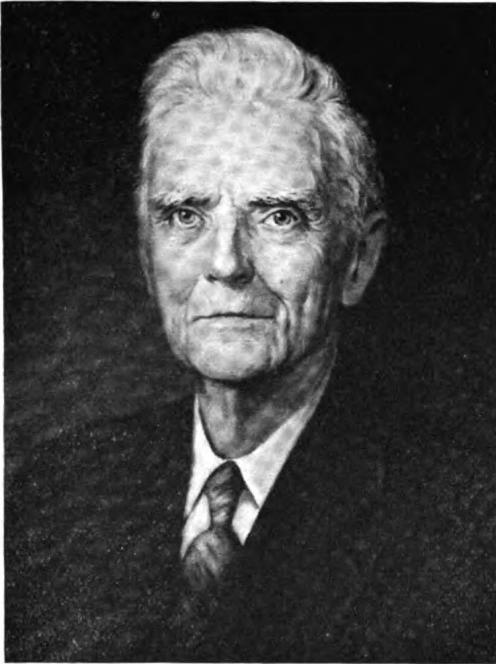
In 1800, the sheep industry of California still clustered close to the missions. Much effort had been expended, and the growing of sheep and the development of the woolen arts were carried on apace. The government established adequate military forces to protect against the wild tribes of Indians. The missions prospered greatly—augmenting their possessions, increasing their flocks of sheep, herds of cattle, and stocks of other domestic animals, multiplying their converts, and absorbing most of the desirable areas, to the virtual exclusion of free white settlers.

Only those holding grants from the missionaries could possess land at all, and the latter were very strict about all concessions. Few colonists were to be found, with the exception of discharged officers, soldiers, and their followers. The missionaries seemed to fear that an increase in whites might retard the extension of religion among the Indians. No soldier in his Catholic Majesty's service could marry without an ecclesiastical license, hence, "it was not difficult for the priests to arrange no more wed-

<sup>66</sup> Charles F. Lummis, *A New Mexico David*, 213.

<sup>67</sup> J. S. Calhoun, *House Executive Document No. 17*, 31st Congress, 1st Session, 191-228; *Senate Executive Document No. 1*, 31st Congress, 2nd Session, 125-48; *House Executive Document No. 2*, 32nd Congress, 1st Session, 448-67.

<sup>68</sup> Bartlett, *Personal Narrative*, Vol. 2:fn. 385-86.

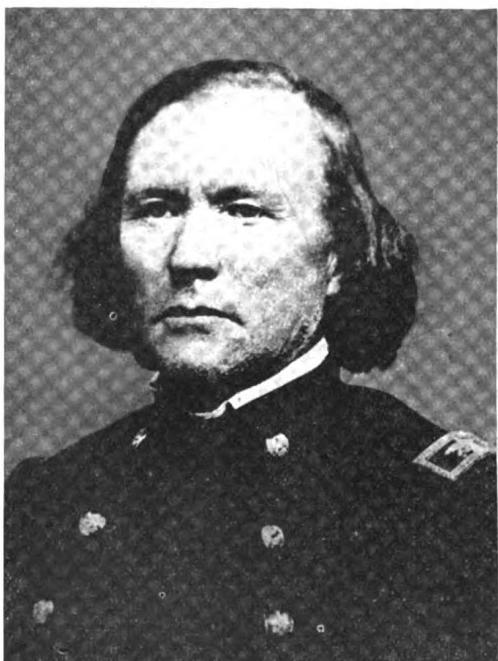
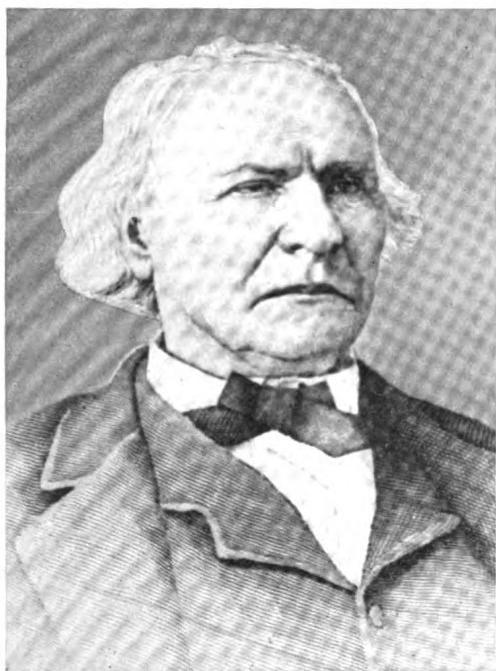


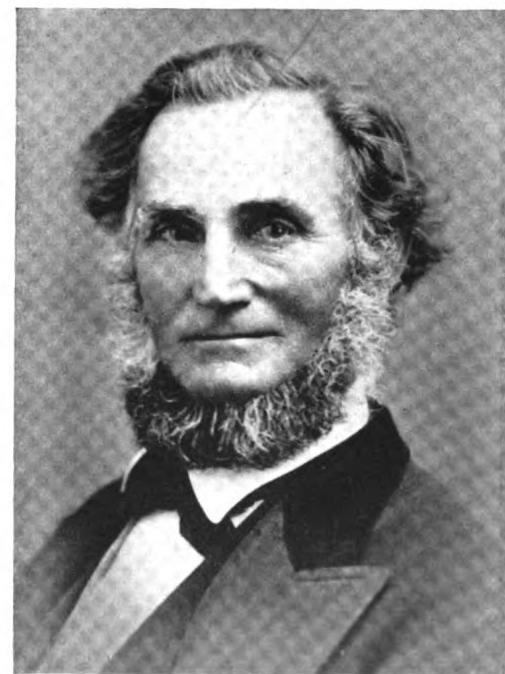
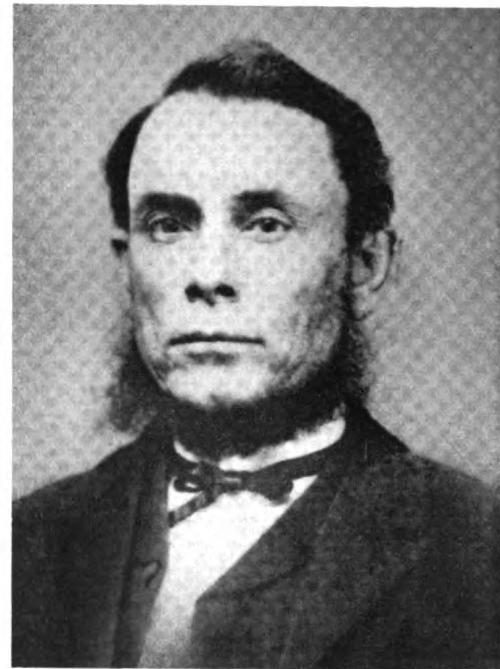
PANEL 31—(Above) George A. McKerrow, Wisconsin's eminent sheep breeder at ninety years (p. 155). (From portrait by Othmar Hoffler.)

(Above Right) J. B. Grinnell, Iowa's best known sheepman of the Civil War period (p. 139).

(Below Right) Colonel Christopher ("Kit") Carson, early driver of sheep to California (p. 168). (Photo from the Historical Society of New Mexico.)

(Below) Richens L. ("Uncle Dick") Wootton, dramatic trailer of flocks to the gold fields (p. 167).





PANEL 32—Four Mid-Century Trailers of Breeding Flocks to the Pacific Coast:

(Above) Dr. Thomas Flint (pp. 75, 170).

(Above Left) Llewellyn Bixby (p. 167).

(Below Left) Benjamin Flint (p. 169).

(Below) Colonel W. W. Hollister (pp. 138, 169).

dings than they desired."<sup>69</sup> Consequently there were few private livestock operators in California at the time of the Mexican separation from Spain, and the development of sheep for that period was dependent on the priesthood.

The missions had each been allocated, when established, a tract of land about fifteen miles square (144,000 acres) which was generally fertile, well watered, and suited to husbandry, but some of the mission holdings had been extended to several times this size. After allowing an ample site for the mission buildings and grounds, the remainder was divided, according to the needs, into crop lands and grazing areas. The villages for the Indian converts were usually enclosed by high walls, the huts or houses being built of sun-dried bricks. Those buildings directly associated with the mission were arranged in the semblance of a square, with the church establishing one wall of the elevation. Apartments for the priests, workshops, and granaries formed the remainder of the wall. The workshops at the larger missions included places for melting tallow, making soap, and spinning and weaving, as well as storehouses for wool, hides, tallow, butter, soap, salt, wheat, peas, beans, etc. The Indians were employed according to the trade or occupation taught them, and according to the season. Women performed most of the spinning, while men were trained in wool-combing and weaving. One of the principal occupations of the missions was the manufacture of a coarse sort of cloth from the wool of their own sheep, to clothe their Indians and for occasional sale or trade.

As late as 1835 there were only three "pueblos," or towns, in Upper California—*Nuestra Senora la Reine de los Angeles*, *San José de Guadalupe* (about a league from the mission of *Santa Clara*), and

*Branciforté* (a mile and a half from the shore of the bay of Monterey and a little over fifty miles from the Monterey presidio). There were four of these *presidios*, or military headquarters, in Upper California, the other three being at San Francisco, Santa Barbara, and San Diego. In the vicinity of each *presidio* was a *rancho*, on which crops and live-stock were grown for the use of the soldiers, and sheep and cattle were usually located there. These *ranchos* were frequently ten to fifteen miles distant from the *presidio*, but their products, even in sheep and wool, were so restricted that they performed little function in the California economy.

With the secularization of the missions, a complete change took place. Indians who had tended the flocks under the supervision of the *padres* proved unable to care for themselves. The government officials frequently had to request the priests to take up their old responsibilities of leadership in order to save the flocks and herds from extinction by the savages. Hence the number of sheep fluctuated tremendously. In 1825, four years after independence, there were seventeen missions along the seacoast (then in the height of their prosperity) that had 1,003,970 sheep—not including flocks of sheep owned by *rancheros* "which were quite as numerous as those possessed by the church."<sup>70</sup> Based on this statement, the claim has been made that Upper California had two million sheep in 1825. However, this estimate may be discounted by another statement made just as frequently, that "few, if any of these sheep, passed into the hands of even the Mexican settlers of California

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<sup>69</sup> Forbes, *A History of Upper and Lower California*, 81.

<sup>70</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 20.

previous to the secularization of the missions,<sup>71</sup> and the secularization did not begin until a half decade had elapsed, following Mexican independence from Spain.

In 1829 Kit Carson, on his first trip to California, visited the Mission of San Gabriel, which was in a flourishing condition. He reported it as having 70,000 cattle, 1,200 horses, 3,000 mares, 400 mules, 20 yoke of work cattle, and 254,000 sheep.<sup>72</sup> In the same year, Pattie passed the mission of San Miguel where he purchased a sheep from one of the mission's shepherds, paying him with a knife. He wrote that at this ranch alone, there were thirty thousand head of sheep belonging to the mission.<sup>73</sup> The next year, at San Luis Rey, he found twenty thousand sheep and over two hundred thousand acres of land, with the founding *padre*, Antonio Peyri, still in charge. When the mission at Santa Barbara was established some of its area was set aside for ranches. The lands tributary to El Capitan were at first used exclusively for sheep raising, while the Rancho San Julian was leased to the Presidio of Santa Barbara for beef raising. Horses multiplied so fast they interfered with both undertakings and were frequently rounded up so that the excess could be killed by spear thrusts. In 1815 it was necessary to order a wholesale slaughter of horses to preserve the sheep and cattle grazing.<sup>74</sup>

Between 1828 and 1830 a great drouth occurred in California, when twenty-two months elapsed with practically no rain. Livestock died by the thousands<sup>75</sup> and the wells and even the springs at Monterey dried up. Forty thousand head of horses and neat cattle perished, while the numbers of sheep and goats were not even estimated. At the mission of La Purísima Concepción, several large droves of horses, mules, and asses were

driven over the cliffs to save pasturage for cattle and sheep.

As the secularization of the missions progressed under Governor Echéandía, the *padres* relinquished sheep husbandry more readily than cattle raising, and a greater distaste for its practice appeared among the *rancheros* established on the mission lands. Hence a popular feeling developed among the *Californios* that it was beneath the dignity of *rancheros* and *vaqueros* to tend flocks or even to engage in wool dealing and woolen manufactures.

The statistics of 1831, therefore, demonstrated a tremendous decrease in sheep. Their distribution in California that year<sup>76</sup> is presented in the table on the next page, although Forbes' figures are probably minimum, since he says<sup>77</sup> that the missionaries always accounted for fewer livestock than they possessed. The middle column presents the maximum numbers, according to de Mofras<sup>78</sup> and the right hand, a few figures reported by Bancroft.<sup>79</sup>

Duflôt de Mofras corrected the peak figure at Santa Barbara to 2,614 head. At the time of this accounting, Forbes bemoaned the fact that little mutton was eaten and that the wool was not fit for export. However, sheep were worth

<sup>71</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 947.

<sup>72</sup> Charles Burdett, *Life of Kit Carson*, 20.

<sup>73</sup> Pattie, *Personal Narrative*, 227.

<sup>74</sup> Walter A. Hawley, *Early Days of Santa Barbara*, 93-94.

<sup>75</sup> H. H. Bancroft, *California Pastoral*, 338.

<sup>76</sup> Forbes, *A History of Upper and Lower California*, 165.

<sup>77</sup> *Ibid.*, 177.

<sup>78</sup> Eugene Duflôt de Mofras, *Travels on the Pacific Coast*, Vol. 1:172, 176, 181, 188, 192, 194, 195, 197, 198, 199.

<sup>79</sup> Bancroft, *California Pastoral*, 339.

about eight shillings English money (two dollars) per head.

It is impossible to conceive a country more adapted to the breeding of sheep than Upper California; and if a good kind were introduced by intelligent breeders, the benefit would be incalculable. The same plan is followed with the sheep as with the black cattle in respect to castration; and the flocks consist only of rams and ewes without any wethers. . . . The mutton, like the beef, is therefore bad.<sup>80</sup>

These statistics for the mission sheep are no doubt suggestive, but it seems quite certain that they do not measure the total sheep population for Upper California. Nevertheless, the production of the mid-thirties was far below the bountiful days of 1825, and Duflôt de Mofras reports that the numbers of

sheep, goats, and pigs had dropped, as a result of the drouth of 1840–41, from a total of 321,500 head in 1834 to 31,600 in 1842.<sup>81</sup> Despite the evidence as to the effect of this drouth, there must have been some regions that were less affected, as General John Bidwell's diary states that there were many sheep at certain points in California in 1842 and especially mentions six thousand head at the Livermore Rancho and a thousand head at Captain Sutter's.<sup>82</sup>

<sup>80</sup> Forbes, *A History of Upper and Lower California*, 174.

<sup>81</sup> Duflôt de Mofras, *Travels on the Pacific Coast*, Vol. 1:165.

<sup>82</sup> General John Bidwell, *A Journey to California . . . 1841*, 39.

#### SHEEP DISTRIBUTION IN CALIFORNIA, 1831

Area	Reported by		
	Forbes	de Mofras	Bancroft
Jurisdiction of San Francisco:			
Presidio of San Francisco.....			
Pueblo of San José de Guadalupe.....			
Mission of San Francisco de Solano.....	5,000		4,000
Mission of San Rafael Arcangel.....	2,000		4,500
Mission of San Francisco de Assisi.....	3,000		79,000
Mission of Santa Clara de Assisi.....	7,000		82,000
Mission of San José de Guadalupe.....	13,000		19,000
Mission of Santa Cruz.....	5,403		2,900
Jurisdiction of Monterey:			
Presidio of Monterey.....			
Pueblo of Branciforté.....			
Mission of San Juan Bautista.....	7,017		69,000
Mission of San Carlos de Borromeo.....	4,400		7,000
Mission of Nuestra Señora de la Soledad.....	6,358		7,000
Mission of San Antonio de Padua.....	10,000		14,000
Mission of San Miguel Arcangel.....	8,000		10,000
Mission of San Luis Obispo de Tolosa.....	1,200	7,000	7,000
Jurisdiction of Santa Barbara:			
Presidio of Santa Barbara.....			
Mission of La Purísima Concepción.....	7,000	14,000	14,000
Mission of Santa Ines.....	2,200	12,000	12,000
Mission of Santa Barbara.....	3,300	5,000	5,000
Mission of Santa Buenaventura.....	3,100	6,000	6,000
Mission of San Fernando Rey de España.....	3,000	7,000	7,000
Pueblo of Nuestra Señora la Reina de Los Angeles.....			
Jurisdiction of San Diego:			
Pueblo of San Diego.....			
Presidio of San Diego de Alcalá.....	320	32,000	
Mission of San Gabriel Arcangel.....	13,554	40,000	70,000
Mission of San Juan Capistrano.....	4,800	10,000	10,000
Mission of San Luis Rey de Fráncia.....	25,500	100,000	100,000
Mission of San Diego de Alcalá.....	17,624	32,000	17,000
Total.....	153,455		

Whatever criticism may be made of the ethics and justice involved in the secularization of the missions, it is apparent, one hundred years later, that it was the move that stimulated agricultural development. The era of the *ranchos* was the era of California's pastoral glamor. Great white walled *haciendas* domiciled a happy, prosperous, and carefree people, who dispensed a never-failing hospitality and welcome. The pioneer *rancheros* were Spanish, but they absorbed Englishmen, Scotchmen, Frenchmen, and Americans alike, and their halcyon days spread over a quarter-century.

Between 1828 and 1846 the *Californios* made the most of their opportunity to place *ranchos* in private hands. There were rapid changes of power, both in the governors and the military commanders, and everyone in authority tried to take care of his friends. No grant was made of less than a square league (4428.5 acres) and some equaled eleven leagues (48,713 acres).<sup>83</sup> Political plundering of the missions was great, but a code of honor developed among the new *rancheros* which survived into the romantic period of the cattle and sheep bonanzas, a period that lasted through the American Civil War.

By 1830 there were fifty private ranches in existence in Upper California, the fourteen near Monterey supporting more than four hundred persons.<sup>84</sup> During the thirties and forties, the governors of California issued, 1,045 grants of ranchos of all sizes, 800 of which were well stocked.<sup>85</sup> Various estimates indicate that about a million and a half cattle, a half million horses and three-quarters of a million sheep were in the state in the late forties, but none of the figures are reliable and they all vary greatly. The United States Census of 1850 records only 17,574 sheep, but ten years later there were over a million, and the heavy

consumption of meats by the gold rush miners would have permitted no such increase as the official records suggest. Unfortunately for sheep men, the Dons counted their wealth in cattle and horses, and seldom reported their sheep, goats, burros, mules, and other stock.

There were several families of *Californios* that exerted an influence on sheep production, though more were associated with cattle, and the names of the Dons seem more closely interwoven with the garb of the *charro* (gentleman horseman), the silver mountings of the heavy saddles, the creamy manes of the sturdy *palominos*, and the twirl and swish of the *lariat*, than with the humble wanderings of the herder. But the Lugos, Nietos, Picos, Torbas, Tapias, Verdugos, Vejárs, Bandinis, Sepúlvedas, and the Dominguez and Palomares families all extended their holdings to sheep, some on a very large scale. Of the Americans, English, French, and Scotch, Abel Stearns, Colonel Julian Isaac Williams, Juan Temple, F. P. F. Temple, Colonel Jonathan Trumbull Warner, William Wolfskill, Perfecto Hugo Reid, Henry Dalton, Benjamin D. Wilson, and Louis Robidoux figured importantly.

The tale of the great ranchos is too voluminous to be presented other than tabularly, and appears on the next page.<sup>86</sup>

Some of the more distinctly cattle ranches carried small flocks of sheep but the data are difficult to obtain. Of the southern California *rancheros*, the Verdugos were probably longest identified with sheep and made their principal

<sup>83</sup> William Kelly, *A Stroll Through the Diggings of California*, 149-50.

<sup>84</sup> Nellie van der Grift Sánchez, *Spanish Arcadia*, 190.

<sup>85</sup> Sánchez, *Spanish Arcadia*, quotes Wm. Heath Davis, 199.

<sup>86</sup> Charles W. Towne and Edward N. Wentworth, *Shepherd's Empire*, 68-80 and 306-23 presents considerable detail.

living from them, although Forster, Vejár, Dalton, Machado, the Sepúlvedas and the Dominguez families ran flocks for important periods. Perhaps the saddest story developed from F.P.F. ("Templito") Temple. After owning a magnificent home at La Mercéd, in Spanish ranch style of U-shape, 70 by 110 feet in size; after planting twenty acres of orchards and fifty thousand vines; and after owning numerous ranches many miles in extent; misfortune overtook him and he died nearly penniless in a rude sheepherder's camp in a corner of one of his famous properties.<sup>87</sup>

No discredit attached to such misadventure. Many of the newcomers loaned money, took advantage of legal and other technicalities when loans came due, and exercised their full predatory instincts to dispossess the *dons*. The days of the *ranchos* were days of high honor on the part of the *dons*, but too often of

sordid debt-foreclosures on the part of the newcomers.

The great Spanish *ranchos* soon passed to new owners and took on a new character. There is a record of Spanish *ranchos* traded for nearly every commodity and necessity. *Ranchos* like the Malibù and the Centinela exchanged for wines and groceries, Los Alamitos bought with hides and tallow, La Cañada deeded for an attorney's fee; *ranchos* for horses, for vines, for surveyor's fees; and many *ranchos* for mortgages. It was a period of rare honor. Don Abel Stearns refused to take advantage of a technicality in his favor and lost a 29,000-acre *rancho*. Juan Matias Sánchez, to help his friends, William Workman and F. P. F. Temple, signed their mortgage to "Lucky" Baldwin and lost his own *rancho* in the San Gabriel Valley wholly without consideration.<sup>88</sup>

<sup>87</sup> Harris Newmark, *Sixty Years in Southern California*, 167.

<sup>88</sup> Palmer Conner, *The Romance of the Ranchos*, 2.

<sup>89</sup> Sarah Bixby Smith, Claremont, California. Letter to W. P. Wing, Secretary, California Wool Growers' Association, San Francisco, July 28, 1925.

HISTORICAL DEVELOPMENTS OF THE GREAT RANCHOS

Rancho	Date Grant	Principal Owner to 1850	Approximate Peak Number Sheep
San Antonio.....	1810	Antonio Maria Lugo	3,500
Los Cerritos.....	1784	Nieto heirs & Juan Temple	5,000
Los Alamitos.....	1784	Nieto heirs & Gen. Figueroa & Abel Stearns	7,000
Santa Gertrudis.....	1784	Nieto heirs & Lemuel Carpenter in 1833	2,500
Topanga Malibù Sequit.	1804	Tapia heirs & L. V. Prûdhomme	2,500
Santa Anita.....	1841	Perfecto Hugo Reid	3,000
San José de Buenos Ayres	1843	Maximo Alanis & Cr. W. W. Jones	1,500
San Pascuál.....	1843	Manuel Garfias	1,200
Ciénega o Paso de la Tijera.....	1843	Vicente Sánchez	2,000
Los Felis.....	1843	Maria Ygnácio Verdugo	1,800
Ex-Mission San Fernando	1772	Church	7,000
San Vicente y Santa Monica.....	1839	Francisco Sepúlveda	15,000
San Pedro.....	1810	Juan José Dominguez	12,000
Los Palos Verdes.....	1846	José Loreto Sepúlveda & Juan Sepúlveda	7,000
Santa Margarita.....	1842	Pio Pico	7,000
San José.....	1837	Ygnácio Palomares & Ricardo Vejár	500
La Mercéd.....	1845	Francis Pliny Fisk Temple	2,000
La Ballona.....	1840	Agustin Machado	4,000
Chino.....	1841	Julian Isaac Williams	30,000 <sup>89</sup>
Cucamonga.....	1839	Tiburcio Tapia & Julian Isaac Williams	7,000
Jurúpa.....	1838	Juan Bandini, J. I. Williams, Col. Johnson, Louis Robidoux	4,500
Santiago de Santa Ana.....	1801	Antonio Yorba	4,000
San Bernardino.....	1842	José María Lugo, Vicente Lugo, José del Carmen Lugo, Diego Sepúlveda	3,000
El Cajon del Muscupiabe	1843	Miguel Blanco (Michael White)	400
San Gorgónio.....	1846	Powell (Pauline) Weaver	500

The north edge of the Spanish settlements around San Francisco was fringed with wild Indian tribes, which neither Spaniards nor Mexicans had taken the trouble to subjugate. Rather than conquer them, they found it more convenient to permit buffer settlements. In 1812, a Russian fur trading company came down from Sitka and was granted a charter to establish a trading post and fort (Fort Ross), about sixty miles up the coast from San Francisco. Inland, Captain Sutter's agricultural empire provided a similar barrier.

During the early thirties there were three large *ranchos* east of San Francisco Bay. Two of them were owned by California *dons*—José Maria Amador, who was situated east of modern Oakland, and Ygnácio Martinez, whose *Rancho Piñole* was located just south of Suisun Bay, near the modern city of Martinez. The third was operated by Robert Livermore. He was closer to the mountains, in what is now known as the Livermore Valley, his headquarters being not far from the center of the present city of Livermore. An Englishman who had left his vessel on the California coast when a mere boy, he grew up on a *rancho* until he handled both horse and lariat like a native Californian. After his marriage, he gradually acquired a large herd of wild cattle, and a flock of several thousand sheep (six thousand head in 1842).

As the forties opened, Yerba Buena (San Francisco) was surrounded by magnificent ranch sites. To the south of the city and west of the Bay, above the present locations of San Mateo and Burlingame, was the *Rancho Buri-buri*, belonging to Don José Sánchez, with about eight hundred sheep. South of it, where Menlo, Belmont, and Redwood City now stand, was the *Rancho Los Pulgas* (Ranch of the Fleas) the property of Governor Luis Arguëlla. Its flock was

small, but in the Santa Clara-San José Valley there was a large number of small bands, along with a hundred thousand cattle and twenty thousand horses.<sup>90</sup>

On the southeast side of the Bay stood the great *San Leandro Rancho* of Don José Joaquin Estudillo, with five to six thousand sheep, and north of it the still more extensive *Rancho San Antonio* of Don Luis Peralta, with more cattle and horses but fewer sheep. East of the San Leandro was Robert Livermore's *rancho*, then in full operation, while east and slightly north of the San Antonio was the great *Los Meganos Rancho*, purchased in 1837 from José Noriega by Dr. John Marsh. Situated at the base of Mount Diablo, four leagues long by three leagues wide, where the San Joaquin and Sacramento rivers poured their fertile currents into the San Francisco tidewater, it was a point of reception for early Americans in Mexican California.

Wild Indians, stock thieves, marauders, and bandits infested the neighborhood, but Dr. Marsh was not afraid to defend it against known intruders and really welcomed the superstitious fear which the Mexicans exhibited for an evil spirit of great size, which was supposed to haunt the sea and to shake its blue feathers at trespassers, chasing them from both mountain glades and valley grasses. Here Marsh practiced medicine, outfitted newcomers at exorbitant prices, raised cattle and horses as the Californians did,<sup>91</sup> and encouraged his Indians to raise sheep, which unkind visitors believed to have been stolen.

To the northwest of Marsh but south of the Carquinez Straits was the *Rancho Piñole* of Martinez already mentioned,

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<sup>90</sup> Wm. Heath Davis, *Seventy-Five Years in California*, 33.

<sup>91</sup> George D. Lyman, *John Marsh, Pioneer*, 212-13.

then the *Rancho Boca de la Cañada del Piñole* of Don Felipe Briones to the west, and still farther west was the great *Rancho San Pablo* of the Castro family, facing the Bay of San Pablo. The flocks on the latter two ranches were small but Don Ygnacio Martinez provided the foundation band for Captain Sutter's New Helvetia in 1839, and the Martinez sheep were drawn on even more heavily when the mass of gold seekers struck the land in '49.

Between Suisun and San Pablo bays and north into the Napa Valley, John Yount (the vigorous American pioneer who rivalled Dr. Marsh in eccentricities) grazed herds of cattle and bands of sheep, while adjoining him was Don Salvador Vallejo with six thousand cattle and five thousand sheep. In modern Sonoma County several great flocks were established. On his two ranches at Petaluma and Temblec, General Mariano Guadalupe Vallejo, commandante general of California's military forces and brother of Don Salvador, ran twenty-four thousand sheep, twenty-five thousand cattle, and two thousand horses.<sup>92</sup> In addition he managed the great *Nacional Rancho Luscal*, which supplied the cattle and horses for the garrison at the Presidio of Monterey, and grew enough wool to provide part of their clothing.

Still farther up the Sonoma Valley was the *Rancho Santa Rosa* of Doña Maria Ygnacio Lopez Carillo, which extended in all directions from the modern town of Santa Rosa. Her flock was small, but to the north was the Englishman, Marcus West, with eight hundred to a thousand sheep. To the west at Bodega and Fort Ross was that romantic representative of Russian royalty, the Baroness Alexandra Rotcheff. She was a princess who had wed, below her rank, the official manager of the Russian fur trading post, and who developed a

large flock of sheep (over three thousand head at the maximum) during the quarter of a century that the post was operated. When finally sold to Captain Sutter, over a thousand head still remained and were transferred to his Feather River farm.

The most spectacular venture in Upper California following the founding of the missions was Captain John Sutter's great establishment in the valleys of the Sacramento, American, and Feather rivers. From it developed a primitive sheep experience which was eventually to pattern the flock management of the Golden State. In 1839, Captain John A. Sutter, an enterprising Swiss, reached the coast of California via Sitka and Honolulu. Just east of the confluence of the American River with the Sacramento, he established the trading post and fortification now known as Sutter's Fort, on a slight hill some two miles south of the river bank but within the confines of modern Sacramento.

For several years his flocks formed the northern outpost of sheep in California. His foundation stocks of sheep, cattle, and horses were purchased from Don Ygnacio Martinez. Payment was contracted in beaver skins and other produce when Captain Sutter had determined his site for settlement. Finally the Mexican Governor, Alvarado, approved a location, and the animals were trailed upstream through the marshes adjacent to the Sacramento River. The losses were heavy, but a breeding nucleus of each finally reached his headquarters, and his flocks and herds were based on them.

In 1841 he established his Hock Farm on Feather River near the mouth of Bear Creek and just south of modern Marysville. This became his great live-

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<sup>92</sup> Davis, *Seventy-Five Years in California*, 135.

stock ranch, and on it his principal flocks of sheep developed, reported at the peak to total three to five thousand head.<sup>93</sup> Following the drouth of 1840-41, Bidwell still found about a thousand sheep, and to this farm Sutter removed in 1843-44 another thousand purchased from the Russians at Fort Ross, released when they vacated their post in 1842. Captain Sutter trained his own sheep herders, using Indians almost exclusively for the task.<sup>94</sup>

In the official report of his operations in November, 1846, Sutter claims two thousand head of sheep.<sup>95</sup> This does not represent his maximum number, for he had been supplying sheep and mutton for various expeditions, including Fremont's, as well as for the vanguard of American settlers already beginning to pour across the mountains. Nearly everyone who came to California made it a point to call at Sutter's Fort<sup>96</sup> for he was "one of the most liberal and hospitable of men" and entertained and outfitted all visitors whether one or one hundred were in the party.

His diary contains many entries bearing on his sheep operations, of which the following are typical:

*October 31, 1845:* Delivered 100 head of sheep to Peter Lassen.

*November 1, 1845:* P. Lassen passed sheep, which he received yesterday on American Fork.

*January 29, 1846:* Mr. Loker went up and delivered 100 sheep to Capt. Leidsdorff (sic).

*June 11, 1847:* Two boys (sheep herders), Chino and Valentine, ran away and deserted the sheep.

*August 24, 1847:* It has been found necessary to discharge Benito Lena, the shepherd.

*August 31, 1847:* The government launch left with General Vallejo, etc. His escort under Ramon Arcé left by land; also three yoke of oxen and twenty sheep. . . . This morning left for the mountains or saw mill seat, Persons, Stevens, Brown, Willis and his brother (all Mormons) and Henge, Seyti, Heimin, Cam and Heimin Henge's brother, a wagon with 3 yoke of oxen and 20 sheep. Charles have (sic) charge of the wagon and Gutche of the sheep.

*October 5, 1847:* Captain Brown left. I sent forty sheep to the saw mill site; also a wagon load of provisions.

*January 5, 1848:* Mr. Sinclair came here in search for his sheep, which partly has been destroyed by his dogs, which he has killed off. It would be a loss if the fine Merino ram would be dead.

*January 29, 1848:* Delivered 50 sheep to Mr. Sinclair, of which he will have half of the increase. In this manner we will get a good breed of sheep. (Evidently the Merino ram survived.)

*April 13, 1848:* A pleasant day. Finished shearing sheep. Sheared about 1025. Sold 52 to Nicolas Hiquer. Remains about 1000, with the 50 by Mr. Sinclair, as from time to time one is killed. The young lambs (sic) may amount to 4 or 500.

Certain interesting facts developed from his diary. Apparently twenty sheep provided a convenient unit for meat provisions with a traveling party, although the expedition of October fifth seemed intended to care for double the numbers, or twice the length of time. Since it was getting toward winter in the mountains, he had an extra large crew of workmen building a sawmill under the direction of James W. Marshall—the wheelwright whose discovery of gold at a millrace the next year crashed Sutter's empire over his own ears. The famished gold seekers slaughtered his cattle and stole his sheep for their flesh and pelts. Many a "Forty-niner" wore a roughly fashioned coat made of sheep skin, with the wool on the inside to protect him against the mountain cold during the first few winters, of which poor Captain Sutter was the unsuspecting donor. A few roughs set up slaughter houses on islands in the American and Feather rivers not far from his headquarters and supplied the miners with meat from Sutter's herds and flocks, with

<sup>93</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 948.

<sup>94</sup> Julian Dana, *Sutter of California*, 289.

<sup>95</sup> *Ibid.*, 246.

<sup>96</sup> General John Bidwell, *Echoes of the Past*, 80.

no recompense to him. No more high-handed procedure was ever justified in American history, but the local authorities preferred to back the newcomers than protect the man who opened northern California.

Captain Sutter took the first American census and assured H. W. Halleck, Secretary of State for California, in a letter of December 20, 1847, that the number of "cattle, horses, sheep, mules, hogs, etc., may be relied upon as being correct," for the region east of the San Joaquin and Sacramento rivers.

With the discovery of gold the whole picture changed. Sheep worth seventy-five cents to one dollar per head rose to twelve or fifteen dollars in 1849, as the gold rush broke. Great flocks came over the trail, every route from the Middle West and from New Mexico being utilized. In the summer of 1849, Miguel A. Otero<sup>97</sup> and Antonio José Luna (the latter being the personal representative of Otero's brother, Judge Antonio José Otero) drove approximately twenty-five thousand head, in a close succession of ten bands, all the way to the gold fields.

Starting from the vicinity of Santa Fe they left New Mexico through Valéncia County and followed the approximate route of the Santa Fe Railway across Arizona, skirted southern Nevada, moved up the Mojave River in California, drove over Tehachapi Pass, and then traveled down the northward-leading valleys. The respective bands were separated only two or three miles, each group being attended by three herders with their dogs.<sup>98</sup> Fortunately many wild turkeys were found at various points en route, providing a type of sustenance to the traveler which local extinction denied later expeditions. In the gold fields, the sheep brought ten to twenty-

five dollars per head, depending on the hunger of the prospectors and the supply of "dust."<sup>98</sup>

Other flocks were trailed across Wyoming, Idaho, and Nevada, and soon the California sheep went into the hands of men who saw wealth in the golden fleece rather than in the golden sands. All up and down the Sacramento and San Joaquin valleys agricultural Argonauts, who found neither wealth nor spiritual reward in the placers, renewed their touch with the earth through flocks of sheep and herds of cattle. As the first half of the nineteenth century closed, the foundations were laid for the great ovine industry which soon permitted California to dominate the West.

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The story of sheep entered a new chapter with the American occupation of the Southwest. The old Spanish blood still provided the base for west coast flocks, but the aggressive policies of the American settlers modified the types and increased the productivity. The discovery of gold drew an abrupt curtain across the pastoral idylls of early California, and from 1850 forward the rushing stream of American business swept the sheep industry along its current. Probably at no other time in world history has a country been required to undergo as rapid a change from pastoral pursuits to adventurous mining, from calm Latin placidity to frantic American rhythms, and from the gentle counseling of the *padres* to the petty but ostentatious authority of newly-made officials.

<sup>97</sup> Governor M. A. Otero, Santa Fe, New Mexico. Interview with author, February 7, 1939. M. A. Otero was the Governor's father and Judge Antonio José Otero was his uncle. Cf. Gov. Otero, *My Life on the Frontier, 1864-1882*, Vol. 1:282.

<sup>98</sup> *Ibid.*

*Year after year my stock it grew  
And from this one, this single ewe,  
Full fifty comely sheep I raised,  
As fine a flock as ever grazed.*

—William Wordsworth, "The Last of the Flock"

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## Flocks in the Farming States

JUST as sheep started over the trails to the trans-Mississippi prairies, the Civil War broke. Cotton supplies shrank in the northern markets, and fabric manufacturers turned to wool. Westward-building railroads unloaded thousands of sheep at their respective terminals. These fanned far into the interior, to establish new flocks and to furnish wool for the great war demand. Minnesota, Iowa, and northern Missouri offered a frontier of fertile acres, low in price, which tempted the wool grower to expand to his utmost.

Prairie problems that had daunted the settlers of the forties and early fifties were disregarded, and appeals to the patriotism of the farmer were sounded in each new community. Enthusiastic boosters told the tale of wool at agricultural meetings; editors excoriated their own commonwealths if they did not excel their neighbors in wool production; and political and civic leaders vied to head the ovine advance. Throughout the four years of the war, flocks swept into the prairie arc stretching from St. Joseph on the Missouri to Red Wing on the Mississippi—and multiplied.

It was a day of small farms and smaller flocks. Between 1850 and 1860 the trans-Mississippi region had increased its ovine population a little over a million head, though the Ohio-Indiana-Illinois district lost two-thirds as many. The war decade altered this trend, however, and the western area nearly doubled its

numbers, gaining over two and a half million sheep, while the eastern region increased two and three-quarters million animals. The greatest expansion was felt at the close of the war in 1865, when sheep in the Middle West were 30 per cent more numerous than in 1870.

Then the post-war decline in wool prices, the resumption of the cotton supply from the south, and the continuous attacks of prairie wolves rendered wool growing untenable. Thirty years passed before Missouri, Iowa, and Minnesota recovered, while the industry was restored for only one decade in Indiana, and never recovered its pre-war importance in Ohio and Illinois.

\* \* \*

The foothold obtained by sheep in southern Michigan and Wisconsin during the fifties provided a convenient base for expansion into the Northwest during the sixties. Another anchorage of the industry was in Missouri, where nearly a million head were concentrated along the great route to Santa Fe, Denver, Salt Lake, and the northwest Missouri River country. The intervening region was largely virgin territory, and beckoned invitingly to the wool grower.

The first trail over which sheep crossed this flockless area was the old "Mormon Trace" from Nauvoo, Illinois, to Kanesville, Iowa (now Council Bluffs). Perhaps a few sheep were then in southern Iowa, having been introduced from Missouri, but the records are not very

conclusive. Livestock statistics for Iowa were not furnished by the United States census of 1840, and it is doubtful whether many flocks had been established when the Mormons, crossing the Mississippi to Montrose, Iowa, started their westward move from Nauvoo in February, 1846.

The transfer of the 16,000 (Latter Day Saints) into Iowa was finally completed. The line of 3,000 wagons, 30,000 head of cattle, horses and mules, large flocks of sheep, and thousands of men, women, and children, made up such a caravan as had never been seen in America.<sup>1</sup>

Their general route, after leaving the west bank of the Mississippi between Montrose and Keokuk, paralleled the Des Moines River until four or five miles inside Van Buren County, where the "trace" turned more directly westward. The column kept together until it reached Bloomfield in Davis County. Then the roads began to get bad, and on March 8, Elder Parley P. Pratt noted that "the people (were) spreading out."<sup>2</sup> It became obvious that this multi-

tude could not subsist on the prairie, nor on the limited supplies its members might procure at the scattered farms they were passing. Even if they were successful, they knew that other parties of Mormons following them would face starvation.

Small groups, therefore, were sent into the rich valleys to break ground for crops and to establish temporary villages. Later these villages became supply bases for parties that followed, and the sheep left at those points were probably the first established flocks of the state. Such supply points—Garden Grove, Pleasanton, Mount Pisgah, Manti, Galland's Grove, and "Indiantown" or Cold Spring on the Nishnabotna—were not on the direct route but were readily accessible from it.

<sup>1</sup> B. F. Gue, *History of Iowa*, 233.

<sup>2</sup> Elder Parley P. Pratt, *Journal*, in files of Historian, Church of the Latter Day Saints of Jesus Christ, Church Offices, Salt Lake City, Utah. Entry of March 8, 1846.



FIG. 33—"The Mormon Trace"—route by which the Mormons moved their first sheep across Iowa in 1846.

For example, Garden Grove was established on the east fork of Grand River at the mouth of Weldon Creek on April 24, 1846, by a company which drove large flocks and herds with it.<sup>3</sup> After the whole group had split rails, put up houses, dug wells, built bridges, plowed, and planted, it went west, marching May 13. Later immigrants detoured to cultivate the crops, and during the following winter some two hundred remained in the village. At this settlement, as well as at most of the others, small flocks were left behind which as late as 1851, provided limited wool for homespuns, to supplement the frugal equipment of caravans headed for the new Zion.

The trail led nearly due west from Bloomfield, through Davis County into Appanoose, and then bore northwest to the center of Lucas County. From here it dipped south of Osceola in Clarke County, thence northwestward to the corner of Union County, reached over into southern Adair County, and then moved northwest again into Cass and Pottawattamie Counties. Thereafter it followed the prevailing drainage courses southwestward into Kanesville.<sup>4</sup>

As the great sheep and cattle drives to the gold fields developed in the early fifties, the majority of flocks and herds traveled via the "Mormon Trace." A few crossed the Mississippi farther north in Lee County, but continued due west until they reached the trail. Occasional drives came up through Missouri along the Fox rivers and the Wyaconda creeks, or even up the Chariton and Grand rivers, provided they crossed the Mississippi near Hannibal or Quincy, and continued westward instead of turning north immediately. By this date both banks of the Missouri River from St. Charles to Fort Leavenworth were well settled, and the farmers located along the stream opposed the trailing of live-

stock through their localities. Hence many of the sheep that traveled with the Mormon emigrating companies from 1847 to 1856 came up these southward flowing tributaries of the Missouri to join the "Trace" at various points east of Kanesville.<sup>5</sup>

The year 1853 saw the westward tide of sheep movement in full flow. Colonel W. W. Hollister drove nine thousand sheep from Ohio;<sup>6</sup> the Flints and Bixby, nearly two thousand from Illinois;<sup>7</sup> Dillon, fifteen hundred;<sup>8</sup> Thomas Hildreth, two thousand;<sup>9</sup> White and Vail, twelve hundred;<sup>10</sup> and James Moore, forty-five hundred.<sup>11</sup> Wilson Brothers and Judge Burdick also trailed large flocks. A year to a year and a half was required for the trip. Even as late as 1856, small flocks were still following these established routes, bound principally for Utah.

#### IOWA

In relation to its soil resources, Iowa never developed a proportionate ovine population. Nearly a century passed after its admission to the Union before sheep seemed to "catch on." Despite the numbers that traversed the state in the forties, few of them stopped. The Census of 1850 reported only 150,000 head, while that of 1860 showed only 280,000.

Throughout the fifties, however, the developing railroads changed the pic-

<sup>3</sup> Mrs. Harry Havner, *Humeston (Iowa) New Era*, February 11, 1931.

<sup>4</sup> Edgar R. Harlan, "The Location and Name of the Mormon Trail," *Proceedings, Fourteenth Annual Conference, Iowa Society, Daughters American Revolution*. (Address delivered October 22, 1913, at Keokuk, Iowa.)

<sup>5</sup> Moroni A. Smith, Salt Lake City, Utah. Interview with author, January 22, 1939.

<sup>6</sup> J. James Hollister, Gaviota, California. Letter to author, October 10, 1940.

<sup>7</sup> Flint, *Diary*, 20.

<sup>8</sup> *Ibid.*, 50.

<sup>9</sup> *Ibid.*, 33, 44.

<sup>10</sup> *Ibid.*, 75.

<sup>11</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 948.

ture rapidly. Iowa was the first state to receive its pioneer sheep by rail, the practice being hastened by the demands of the Civil War. The rapidity with which the boom was inflated in this state depended upon the ability of the railroads to deliver live freight.

Bands of sheep entered the northeast corner of Iowa through the Prairie du Chien gateway from Wisconsin, as well as through the old Galena-Dubuque portal from Illinois. The Wisconsin village was the early terminus of the Milwaukee and Prairie du Chien Railroad, which led westward from Milwaukee to a ferry where sheep could be crossed over to McGregor, Iowa. Pioneer flocks arrived at Dubuque via the Chicago and Galena line, whose roadbed followed the historic route to the lead mines. Smaller numbers entered this section than crossed the Mississippi farther south, but the flocks were higher quality and more of them stayed in the country.

As sheep production boomed in the early sixties, flock after flock rolled over the railroad bridges at Davenport and Burlington. Most of these sheep were brought from the eastern Corn Belt. The Burlington and Missouri led 75 miles westward from the city of Burlington to Ottumwa, while the Mississippi and Missouri spanned 125 miles from Davenport to Grinnell. At Grinnell lived Iowa's nationally known sheepman, the Honorable J. B. Grinnell,<sup>12</sup> who imported, bred, and distributed flocks. He prepared the informative article "Sheep on the Prairies," included in the 1862 Report of the United States Commissioner of Agriculture.<sup>13</sup>

In 1863, the Burlington and Missouri hauled 17,948 sheep westward, while the next year they nearly doubled the figures with 35,031 head. Similarly the Mississippi and Missouri transported 36,620 and 52,540 head in the corresponding seasons. At the McGregor Ferry,

25,000 head were received from the Milwaukee and Prairie du Chien Railroad. By the close of 1863, Shaffer<sup>14</sup> estimates that there were eight hundred thousand sheep in the state, and a year later the Iowa State Agricultural Society<sup>15</sup> reported more than nine hundred thousand head.

The westward surge that brought flocks to the banks of the Mississippi deflected sharply when its waters were crossed. Travel on the hoof was easiest up the water courses, and most of the streams flowed downhill from the northwest. Four river valleys settled rapidly—the Wapsipinicon, the Cedar, the Iowa, and the Skunk. North of the Mormon Trace an early trail drive wintered in the Iowa River Valley southeast of Marshalltown, while one of the first sheep authorities of the state took a flock of four hundred head up the Cedar River to a farm near Plymouth in Cerro Gordo County, in 1862.<sup>16</sup>

#### HOME LIFE WITH SHEEP

Two Quaker settlements contributed greatly to the early development. The first of these centered around West

<sup>12</sup> J. B. Grinnell, a Congregational minister of New York City, came to Iowa in 1853, to establish a settlement composed of "persons of congenial moral and religious sentiments," possessed of the "pecuniary ability to make the school and the church paramount and attractive institutions from the outset." The town of Grinnell, Iowa, was established on this foundation in 1854. Shortly afterwards the "Grinnell University" was founded. In 1859, Iowa College was brought there from Davenport and consolidated with it. In 1909 the name was changed again to honor the founder, and it is now Grinnell College. Dr. Grinnell was an admirer and promoter of Merino sheep and distributed thousands of them in the state.

<sup>13</sup> J. B. Grinnell, "Sheep on the Prairies," *Report of United States Commissioner of Agriculture, 1862*, 523-85.

<sup>14</sup> J. M. Shaffer, "Sheep in Iowa," *Report of the United States Commissioner of Agriculture, 1864*, 168.

<sup>15</sup> *Report of the Iowa State Agricultural Society, 1864*, 12.

<sup>16</sup> *The Iowa Homestead*, 7, No. 1, (January 29, 1862) :2.

Branch, in the Cedar River Valley—boyhood home of former President Hoover. The second was about thirty miles west of Burlington in the Skunk River Valley, near Salem and Hillsboro. Throughout this period sheep raising was a pioneer industry, and each farm had only a few head, five to twenty-five.

This second region provides the best picture available of daily life in the early Iowa industry. Glimpses of farm routine during the pre-Civil War period are furnished by William Savage, whose complete diary indicates that sheep occupied far less of the busy farmer's time than horses or cattle. The following selected entries suggest characteristic scenes covering a farm shepherd's activities, which Savage first dated in the Quaker terminology:

Eighth Month, 4th Day, 1857. Helped Cap (Killebrew) kill a sheep. . . .

26th Day. Helped Cap unmix his sheep, then picked more plums and grubbed. . . .

Ninth Month, 12th Day. Samuel Siveter here . . . Samuel and I intended to go to Salem, but the rain prevented and I helped Captain (Killebrew) kill a sheep. . . .

Tenth Month, 3d Day. Hunting and made a doghouse. Also helped M. Payne kill a sheep. Went to singing school at night—upper school. . . .

Seventh Month, 23d Day, 1858. Shelled some corn and went to mill with Cap. Helped him catch and kill a sheep, and tried to catch another.

24th Day. Seventh Day (Saturday). Trying to catch one of Cap's sheep until noon and could not. P. M. went to Hillsboro on Kid and traded eggs and lard for dry goods. . . .

Nov. 12th, 1858. Helped Wells undress two sheep (which) some dogs killed early in the morning, then helped Cap kill a fat cow, and went back to Wells's and set trap. . . .

Dec. 27th, 1860 . . . Went to Salem and sold 21 quails, 52½ cents, to J. W. Olds. Traded it out (booked). Came back at night. Killed one quail. Some of my cattle in the field and some in the sheep yard. Put them all right again. . . .

Jan. 13th, (1861), Sunday. Went to Wells's. The boys and I went east to creek. My old sheep had a lamb. . . .

Jan. 21st. Took Mrs. Wells's lard home, and to Gill's timber and got some butternut bark and doctored sick sheep. . . .

Feb. 18th . . . Got one sheep of Jacob Runyon. Mack hauled it home for me. In evening it

jumped out and I tracked it nearly back. Runyon put it in with theirs, and I left it for a few days. . . .

Feb. 25th. Mack and I hauled one load of wood. I went to Runyon's and carried said sheep home. . . .

May 28th. Went to Hillsboro, sold 7½ pounds of butter at 8 cts. Borrowed Simon's sheep shears and sheared four of my sheep. Rainy. Fishing.

May 29th. Sheared other four sheep and took shears home and went to Wells's.

June 19th. Went to Gill's shop and got my shovel plow, a wrench, and a small clevice fixed. I helped Gill put the tires on two wheels. He charged me 20 cts. Baled. P. M., picked wool, and T. and I went to Wells's. . . .

Sept. 1st, Sunday. Put sheep in new pasture. . . .

Nov. 24th. Sunday. Had Job's team and hauled one load of wood. L. Wells here. Virgil Knowles borrowed my buck sheep. . . .

Feb. 21st, 1862. Fanny sheep had a black lamb. . . .

Feb. 22d. A thaw. Torber sheep had a ewe lamb. Watch turkey bait and to creek. Kill two rabbits.<sup>17</sup>

Throughout the Civil War there was still ample prairie which the sheep and cattle could utilize, and much of the difficulty with straying animals mentioned by Savage arose from letting them graze unherded. In some communities a shepherd was hired for several farm flocks; in other cases, children watched them. An interesting experience is told by Alice Money, who herded five hundred sheep horseback at a dollar and a half a week, so that she could attend Albion Seminary in Marshall County, at \$28 per term.

I've watched sheep for two months with my horse, dog, and school-books, and such a time as I have had. . . . One day I was riding through the woods and reading and a limb of a big tree knocked me off! I . . . climbed on again, determined to be more careful. My horse jumped great big logs, streams, gullies, anything that came in her way. The reins were so short that when she put her head down to eat grass, I had to get off to get hold again, so I put my foot through them. That worked all right until I got so interested studying that I was not paying attention. Suddenly I heard someone laugh, and

<sup>17</sup> William Savage, "Diary Notes," *Annals of Iowa*, Third Series, 19, No. 2 (October, 1933):83-114; No. 3 (January, 1934):189-220; No. 6 (October, 1934):460-74; 20, No. 2 (October, 1935):140-50.

there were two great boys looking at me! My foot had slipped over on the other side, and shocking to tell, I was astride the horse! You better believe I got back in a hurry. I was so mortified! . . . One day the sheep got in the corn. The dog was at home and I tried in vain to get them out without him. I started after him and the horse was galloping along when she stumbled and I turned a complete somersault over her head. There were three men working near and they all ran to help me, but I was on my horse again and galloped off before they got there. I was so provoked! The idea of keeling off that horse right where they could see me! I got home and got the dog and a fresh horse and went back after those sheep. You may be sure they did not stay in that cornfield very long.<sup>18</sup>

Cole<sup>19</sup> indicates that practically every pioneer farm or claim in Iowa had its own flock of sheep, and every woman knew how to card, spin, and weave. The only rest that the farm woman got during her arduous day was a short time in the afternoon, when she could half knit and half doze in the crude rocking chairs of her living room or kitchen.

#### THE POST CIVIL WAR DECLINE

As the fortune of war turned to the Union forces in mid-1863, the demand for wool began to slacken. Some prophets of gloom began to inject "sour notes" in the promotion of the sheep industry. Shaffer wrote:

Sheep growing has become a mania in some localities; farmers, stimulated by the high price of wool, investing all their surplus capital in sheep to the almost entire neglect of other branches of stock raising. Sheep will pay; . . . but it is under certain inflexible conditions to which the grower must yield. . . . Men today are bringing thousands of sheep into the state who are not only . . . very poorly, if at all, prepared for them, but who are ignorant of the first principles of their management; know nothing of their diseases and remedies; know nothing about feeding, breeding, sheltering, shearing, or marketing. Can these reasonably expect large profits? The experience of the past is against them.<sup>20</sup>

When the Civil War ended, wool was selling for a dollar a pound. Within two years, it was only a fifth to a third of that price, and Iowa farmers could not

dispose of their flocks fast enough to suit them. The abandonment of wool production became as spectacular as the boom. By 1868 less than half of the county societies reporting to the State Agricultural Society even mentioned sheep,<sup>21</sup> despite the enthusiasm of the reports during the war years.

Several factors contributed to the situation, the most important being the disappearance of the army demand. But accompanying it was the sudden realization by most farmers that their lack of knowledge and experience was handicapping them greatly. Both scab and parasitic worms were taking a heavy toll, the sheep-killing dogs provided a nearly insolvable problem, and the general prairie difficulties that had proved so serious among Indiana and Illinois farmers in the mid-century caught up with the trans-Mississippi region as the second third of the century closed.

Cattle were also beginning to compete strongly for the interest of the average farmer, to the detriment of flock husbandry. The 1870 Census showed fifty thousand less sheep than were estimated six years earlier, while that of 1880 recorded only half as many. In fact, the United States Bureau of Agricultural Economics estimated that Iowa had 1,995,000 sheep in 1867, and only 350,000 head twenty years later,<sup>22</sup> when the state's ovine population reached its lowest level.

Ignorance of handling sheep was unquestionably one of the chief reasons for the reduction in numbers. In 1873 a Mr. Scott brought four hundred good

<sup>18</sup> Floy Laurence Emhoff, "A Pioneer School Teacher," *Iowa Journal of History and Politics*, October, 1935, 379-80.

<sup>19</sup> Cyrenus Cole, *Iowa Through the Years*, 218.

<sup>20</sup> Shaffer, *Sheep in Iowa*, 181.

<sup>21</sup> John A. Hopkins, Jr., *Economic History of the Production of Beef Cattle in Iowa*, 27.

<sup>22</sup> *Livestock on Farms*, January 1, 1867-1919, 73.

quality Ohio sheep to Marshall County.<sup>23</sup> His hay was stacked in ricks on the north side of his sheep pens, which were entirely open on the south. A heavy snow, with a high wind for three days, caused drifts in the lee of the hay stacks that filled the yards to a level higher than the fence and shed roofs. Many of the sheep climbed out and traveled before the wind to a creek where they were customarily watered. About seventy of these perished in the snow, while many of those that remained in the sheds and yards were found standing on their hind feet in the drifts, frozen to death when they could not climb out. Thousands of sheep and swine were lost in that storm, and farm flock owners were much discouraged. Numerous Marshall County sheep raisers disposed of the remnants of their flocks before the next winter, and a third of a century passed before any significant recovery occurred.

#### IMPROVEMENT IN FLOCKS

Interest in quality sheep developed early. At the Iowa State Fair held in Muscatine in 1856, twenty-two sheep of all breeds were exhibited. There were 23 in 1858, when the fair was held in Oskaloosa, 37 in 1859, also at Oskaloosa, and 127 by 1864 when the fair was moved to Burlington.<sup>24</sup> Mutton breeds were well represented as early as 1862.<sup>25</sup> The superintendent of the 1862 show, held in Dubuque, was G. Blocklinger of that city, and the following elaborate judging committees were announced:

##### French Merino Committee:

Isaiah Meek, Bonaparte, Van Buren County;  
Timothy Fox, Denmark, Lee County;  
Samuel Gilmore, Oskaloosa, Mahaska County.

##### Spanish Merino Committee:

J. S. MacFarlan, Iowa City, Johnson County;  
William Hodges, Fort Dodge, Webster County;  
Ed Bennett, Fort Johns, Pottawattamie County.

##### Mixed Breeds—Fine Wool:

Simon Ruble, Beloit, Wisconsin;  
John Milliken, Oskaloosa, Mahaska County;  
J. B. Grinnell, Grinnell, Poweshiek County.

##### Sweepstakes:

John T. Barrick, Janesville, Bremer County;  
G. W. Dungan, Knoxville, Marion County;  
Mr. Briggs, Glenwood, Mills County.

##### Long and Mixed Wools and Mutton Breeds:

John T. Stuart, Farmington, Van Buren County;  
W. J. Graham, New Philadelphia, Hardin County;  
J. H. Shields, Davenport, Scott County.<sup>26</sup>

The predominance of southern Iowa raisers is obvious in the panels selected, as Bremer, Hardin, and Webster were the only counties represented north of the center of the state—three judges out of fifteen. The Fine Wooled Mixed Breeds provided the largest and most popular exhibit. There were adequate exhibits of French and Spanish Merinos, however, while both Southdowns and Leicesters were present to represent the mutton breeds.<sup>27</sup>

Yet commercial sheep feeding failed to develop successfully until after World War I. Dean C. F. Curtiss wrote of that day:

My earliest recollection of the farm flocks in Iowa is that nearly all of them were of Merino origin. . . . Sheep. . . . came to Iowa. . . . largely from. . . . Ohio, and next Vermont. Both of these states were very active in developing the Merino flocks of that time. One of the . . . most vigorous in promoting the sheep industry was the late J. B. Grinnell, founder of Grinnell College. . . . He was regarded as the foremost advocate of farm flocks in Iowa for a number of years. Another man who was quite active and a large breeder of Merino sheep at that time was A. J. Blakely, Sr., also of Grinnell.<sup>28</sup>

Blakely was a Vermonter who located in Grinnell after the Civil War. During his term of military duty, he accumulated about four thousand pounds of brook-washed wool, which he sold in 1864 at a

<sup>23</sup> William Battin and F. A. Moscrip, *Past and Present History of Marshall County, Iowa*, Vol. 1, 268–69.

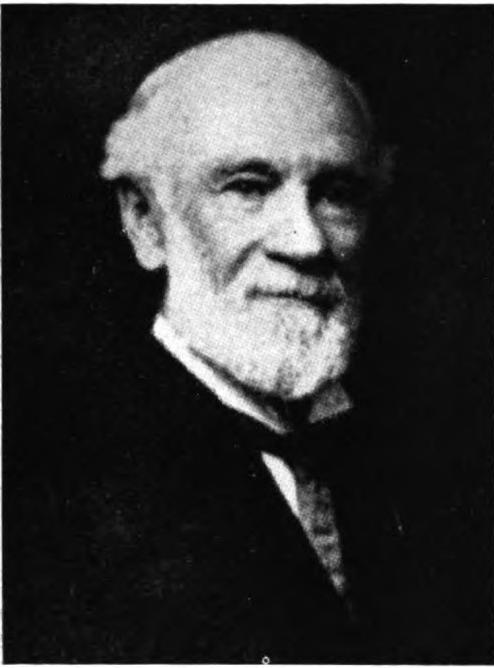
<sup>24</sup> Shaffer, *Sheep in Iowa*, 177.

<sup>25</sup> *Iowa Homestead*, 7, No. 9 (March 27, 1862) : 66.

<sup>26</sup> *Ibid.*

<sup>27</sup> *Iowa Homestead*, 7, No. 40 (October 30, 1862) : 313.

<sup>28</sup> Dean C. F. Curtiss, Ames, Iowa. Letter to author, October 7, 1940.

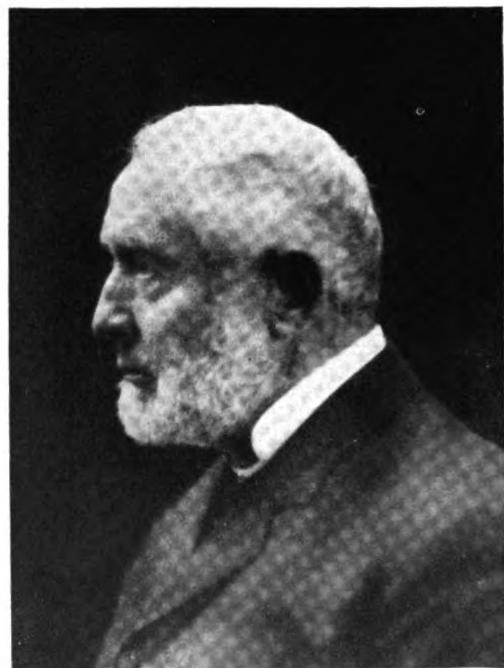
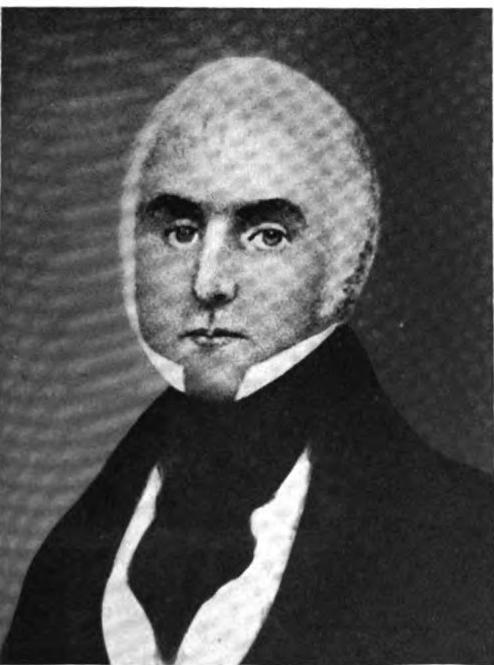
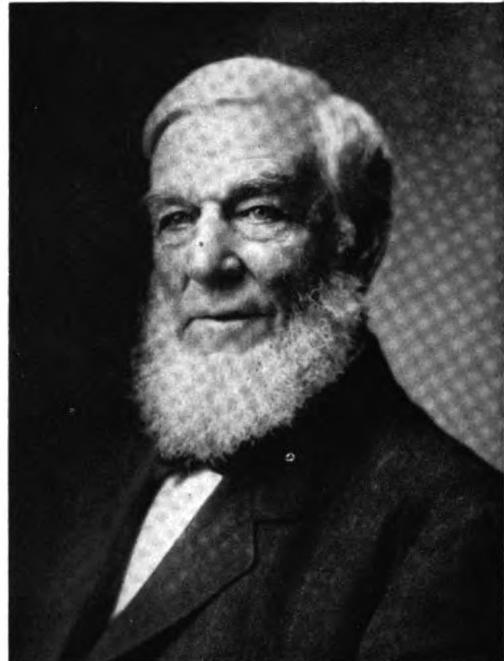


PANEL 34—(Above) Ira H. Butterfield, Jr., who earlier had been youthful supercargo for J. D. Patterson's overland livestock drive, 1861 (pp. 187, 608).

(Above Right) Thomas McConnell, pioneer exhibitor and breeder of Merinos in California (p. 187).

(Below Right) Henry Miller, senior partner of Miller and Lux, and pioneer meat packer in California (pp. 196-97).

(Below) Dr. John McLoughlin, Hudson's Bay Company's factor, and pioneer sheep promoter of Oregon (p. 176). (From miniature on ivory.)



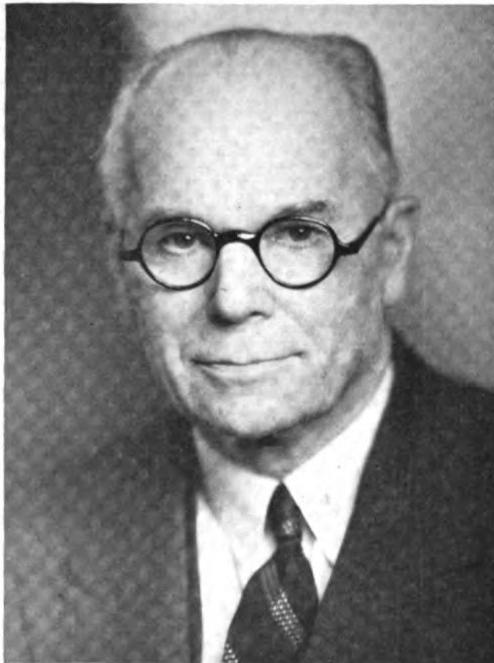


PANEL 35—*(Above)* Silvestré Mirabál, New Mexican flockmaster, agricultural banker, and inspector for Sheep Sanitary Board (p. 240).

*(Above Left)* Solomon Luna, long-term president of the New Mexico Sheep Sanitary Board, and large sheep operator (pp. 240-41).

*(Below Left)* H. Stanley Coffin, founder Coffin Sheep Company, Yakima, Washington (p. 216).

*(Below)* John Seeley, leading Utah breeder and former president of the American Rambouillet Breeders' Association (p. 228).



dollar a pound.<sup>20</sup> This "wool" money was used for a down payment on a 260-acre farm near Grinnell in 1868, and to it he transferred a carload of his Vermont Merino ewes. These were directly descended from a small foundation band of Atwood ewes his father had purchased in Connecticut in the thirties. They had been mated to a Consul Jarvis ram which the elder Blakely had obtained in New Hampshire, driving there by sleigh. No Iowa flock connected as closely with the heyday of Merino breeding as did that of the Blakely's. In the hands of A. J. Blakely, Jr., its show animals played a leading role at the Iowa State Fair for a third of a century, and it is one of the oldest flocks continuously in the hands of one family in the entire United States.

Leadership in the mutton breeds was exercised with Shropshires by W. O. Fritzman, of Muscatine, Muscatine County; Joseph S. Fawcett of Springdale, Cedar County; and William and John Taylor of Ames, Story County. John Graham of Eldora, Hardin County; Wade Hauser of Union, Hardin County; and Charles Croxon of Atalissa, Muscatine County, led with Oxfords.

Sheep covered the state by penetrating up the water courses. The Cedar, Skunk, and Des Moines river valleys were well populated as the sixties ended, but the liquidation program of the seventies, with its subsequent adjustments, brought on a new distribution. When the century closed, the proportions of the sheep population geographically were approximately as follows:

Fawcett was especially interesting as he made the swing from "A" type Delaines to mutton sheep in the early nineties. His father had been a breeder of high quality Vermont Delaines in Morgan County, Ohio, and Joseph Fawcett brought high quality stock to Cedar County, Iowa, in 1881. The change to Shropshires was fortuitous.<sup>21</sup> Driving his Studebaker wagon from West Branch one evening to their Old Homestead Farm, he and his son followed a flock of purebred Shropshires belonging to John Fritzman. These were being herded to the latter's farm two miles west of the Fawcett place. It was in the fall, and the ewes were fat and uniform as "peas-in-a-pod."

After studying them he turned to his son and said, "Carlos, we have been raising the wrong breed of sheep for this country. We are going to breed Shropshires from now on." Poland-China hogs were exchanged with W. O. Fritzman of Muscatine (John's brother), and the Springdale Shropshire flock was established. For two decades, 1897-1917, it was prominent in the show ring, averaging seventeen ribbons annually for nine years at the Iowa State Fair.

During the last quarter of a century the most striking characteristic of the

<sup>20</sup> A. J. Blakely, Jr., Grinnell, Iowa. Letter to author, November 7, 1940. See Biographical Appendix.

<sup>21</sup> *Livestock on farms*, 73.

<sup>22</sup> Carlos J. Fawcett, General Manager National Wool Marketing Corporation, Boston. Letter to author, June 16, 1942.

Cross-Section	Percentage of Distribution <sup>20</sup>			
	West	Center	East	Total
North.....	11.2	10.9	6.5	28.6
Center.....	7.5	9.3	6.2	23.0
South.....	6.7	17.3	24.4	48.4
Total.....	25.4	37.5	37.1	100.0

Iowa sheep industry has been the development of lamb feeding. While some New Mexico lambs were wintered in south central Iowa before the first World War, shipment into feed lots reached an important level only in the twenties, when the liquidation of the western sheep industry permitted Iowa feeders to fill their feedlots cheaply. Approximately two-thirds of a million lambs went through the central markets en route to Iowa destinations, to say nothing of the direct range-to-feedlot shipments. But adjustment to the postwar values had not been completed at the time that the buyers procured them, and a large number of the new Iowa feeders sustained decisive losses. During 1921 and 1922 the operations were only about half of 1920, but in 1923 confidence began to be restored and the number of lambs on feed passed the four hundred thousand mark. The northwest section of the state was taking the lead, and in the late twenties the Corwin brothers of Rock Rapids, Iowa, and Balthauser and Moyer of Fargo, North Dakota, distributed thousands of lambs in this area.<sup>32</sup> Until the depression began to be felt in 1931, the numbers hovered around that level, and then contracted for two seasons.

An unusual fact in the development of lamb feeding in Iowa has been the inconsistency of the different areas in expanding and reducing operations. For example, in the region around Oskaloosa, sheep feeding was practiced almost two generations ago. A great many different dealers supplied the area—southwestern yearlings and lambs were fed first, and northwestern sheep were introduced later. However, most of the feeders were "in-and-outers." There were a few large operators whose fathers were in the business before them, and their volume varied with the size of

their feed crops. But the average feeder's operations up to World War II made Iowa an up-and-down state in fat lamb production, proportionate with the energy of the men bringing feedlot animals into the region.<sup>33</sup>

During the early part of the thirties, one of the largest sellers of feeder lambs was a cooperative—the Iowa Livestock Marketing Association. It dealt largely with farm operators in the southern and south central part of the state. Its lamb feeding activities were under the direction of John Wisdom until about 1936, when the organization disbanded and Wisdom took over the remaining feeder lamb business privately.

The drouth of 1934 stimulated large shipments into Iowa, but half-famished lambs were not profitable feeding animals. Hence it was 1937 before the Iowa feeders recovered from the disappointment of the bad drouth season. At this point a new factor affected the industry. The slaughter of pigs under the federal swine reduction program lowered the normal volume of business greatly for several of the interior packers, and in the scramble to replace the loss in hog slaughter, several of them either started feeding lambs themselves or encouraged farmers near them to increase their lamb operations.

In 1935 a new promotional organization entered the business, and concentrated entirely on sheep. J. C. Petersen opened offices as the Petersen Sheep Company in Spencer, Iowa, and spread out to numerous other points. The Petersen Sheep Company became the largest single operator within the state. Lamb feeding also was encouraged in

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<sup>32</sup> Dr. L. M. Kyner, Waterloo, Iowa. Letter to author, April 18, 1945.

<sup>33</sup> *Ibid.*

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the north central and central parts of the state by the Rath Packing Company of Waterloo. Its efforts became particularly effective as the federal pig slaughter program got under way, and next to the Petersen Company, this packer was responsible for the build-up of the lamb feeding industry.

Still another influence that was of a pioneer nature came from the activities of the 4-H Clubs. In 1936 under the direction of the Extension Service of Iowa State College (especially C. W. McDonald, the assistant extension animal husbandman), a western lamb feeding project was established which took lamb projects out of the exhibition field and placed them on a commercial basis. More than forty-two thousand lambs have been handled in the enterprise. It is the plan that the experience of these young men in commercial feeding may place lamb finishing on a more substantial basis for the state.

Growth of lamb feeding has been rapid, and by 1940 more than a million head were in Iowa feedlots, while by 1943 there were nearly a million and a quarter.

During the same period, the state income from sheep and lambs (exclusive of wool) increased from under eight million dollars to nearly twenty-four million dollars. Also during the same interval wool values increased from less than two million to four and a half million dollars. Sectionally, the proportion of farm income arising from sheep, lambs, and wool was as follows in 1943:

In fact, Iowa has come to occupy third position among the lamb feeding states, and for one year ranked second. In the two decades since 1923 the number of sheep marketed to Iowa packers increased from about six hundred thousand head to more than a million.

Though sheep average to yield only about 1 per cent of the state's gross agricultural income, approximately 12 per cent of the farmers within the state had producing flocks.<sup>35</sup>

It was 1935 before the number of stock sheep in the state returned to the level of 1870.<sup>36</sup> In 1938 the three main sheep associations—the Iowa Sheep and Wool Growers, the Iowa Lamb Feeders, and the Iowa Purebred Sheep Breeders associations—amalgamated to form the Iowa State Sheep Association and to promote the general flock interest.

#### MISSOURI

At the first livestock census in 1840, Missouri had more sheep than any other state west of the Mississippi River, and it held this position until California nosed it out in 1860. Texas and New Mexico passed it in 1880, but it was not until 1900 that the majority of the high producing western states showed a larger sheep population. Since then Missouri has dropped behind all of the western sheep states except Washington, Nevada, and Arizona.

The region was strategically located

<sup>34</sup> Leslie M. Carl, C. H. Roseland, and W. G. Hampton, *Farm Income by Counties*, 5-7.

<sup>35</sup> Leslie M. Carl, "Livestock in Iowa," *The Book of Iowa*, 100.

<sup>36</sup> *Livestock on Farms*, 73.

PERCENTAGE OF FARM INCOME ARISING FROM SHEEP, LAMBS, AND WOOL, 1943<sup>34</sup>

Cross-Section	West	Center	East
North.....	2.1	1.4	0.8
Center.....	1.8	1.0	0.8
South.....	1.6	4.9	3.9

to build its sheep population. The Missouri River furnished the chief travelway to the Northwest, and the growing of sheep was stimulated by the demands of travelers for woolens. Furthermore as the coonskin era of frontier clothing passed, each settler found it essential to supplement his own raiment with wool. The Mormon settlements in northwestern Missouri led to an extension of sheep in that region in the late forties and early fifties, while the trailing of flocks into Texas during the fifties spread the species into the southwestern section of the state.

St. Charles County, upstream from St. Louis, was the leader in quality sheep development. This county showed 4,606 sheep in the 1840 Census; 10,425 in the 1850 Census; while in 1865 Alexander<sup>37</sup> estimated that there should be 26,780. The largest flock in the county numbered fourteen hundred head and contained about two-thirds Merinos and one-third "native" sheep. It was owned by Henry Beck, a German who had more experience as a shepherd than anyone else in the county.<sup>38</sup> His brother, Lawrence Beck, was his closest rival and maintained a flock of nine hundred head of similar classes of sheep. Alexander estimated that twenty thousand pounds of wool, above the local consumption, was shipped from the county in 1865.

The greatest handicap to sheep production in Missouri was the destruction by night prowling, wolfish dogs. In the thickly settled farming sections, nine out of ten families had two to five hunting dogs. These not only roamed the country without control, but often in the night destroyed the profits of the flockmaster for an entire year. Champ Clark's song at the Democratic National Convention of 1912, "You've Gotta Quit Kicking My Dog Around," had serious local, as well as comic national aspects. The sheep farmer did not dare shoot the

prowlers for fear of a lawsuit. Heath<sup>39</sup> quotes deaths of five to twenty sheep in one night on a single farm as a result of worthless curs.

Sheep owners were long unable to obtain legislation that would protect them, as they were hopelessly outnumbered at the ballot box by the hound owners. In addition to predatory activities, the majority of wandering curs were carriers of various parasitic diseases affecting both man and sheep, and Dr. Curtice<sup>40</sup> felt that the dog was little more dangerous as a beast of prey than as a distributor of tapeworms and round worms.

#### THE COMING OF BETTER SHEEP

Alexander was particularly interested in disease resistance, and praised the greater hardiness and healthiness of the "native" sheep:

When lambs are dropped the shepherd expects that if any are lost, the pure bloods will die, and in proportion to the purity of blood will be the loss per cent. The native sheep are, of course, acclimated, and the frequent and sudden changes, or some other characteristic of our climate, seems seriously to affect the imported animals and their offspring.<sup>41</sup>

Henry Beck insisted, according to Alexander, that the wool on imported sheep did not deteriorate under the eastern Missouri conditions. But he recognized that its quality at each shearing depended materially on the care bestowed by the shepherd, and on the quality and quantity of pasturage.

A real sheep authority in early Missouri was Henry Ancrum, who lived

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<sup>37</sup> Alexander, *Report Showing the Condition of Agriculture in St. Charles County, Missouri*, 4.

<sup>38</sup> *Ibid.*, 13.

<sup>39</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 867-68.

<sup>40</sup> *Ibid.*, 867 quotes Dr. Cooper Curtice.

<sup>41</sup> Alexander, *Report Showing the Condition of Agriculture, etc.*, 13.

twenty-four miles southwest of Bowling Green in Pike County. In 1847 he appeared as a propagandist for the French Merino,<sup>42</sup> while in 1849 he presented a bonanza proposition for sheep raising. He advertised to tend single flocks for their owners, and if these owners did not wish to follow his book-keeping he agreed to pay 10 per cent annually on the value of the flock, "plus a mode of insurance by which the capital could never be lost." He claimed twenty years' experience in Europe and nine years in the United States as a sheep raiser. In addition, he asserted that he had studied all the collateral branches of the science of sheep husbandry, including anatomy, pathology, comparative anatomy, physiology, nutrition, and scientific agriculture.

He asserted that because of this training he was able to add two years to the profitable existence of any animal, and with sheep he could "greatly increase secretions of wool" by his knowledge of the properties of food and of the general management of sheep. He announced that he had "ransacked" Europe and the United States for his information, and had been laboring for twenty years to perfect his system. His advertising seems boastful, but he probably could have made most of his statements good, since the knowledge of sheep husbandry on the general Missouri farm was sketchy.

Considerable interest developed in the exhibition of sheep in the fifties. As early as 1835 a Merino ewe and three rams were shown at the Boone County Agricultural Society's exhibition at Columbia, while in 1841 both Saxonies and Merinos were shown. At the first Missouri State Fair in Boonville in 1853, fourteen sheep of six different breeds were exhibited. In 1854, sheep were shown at the State Fair and at the Boone, Callaway, and Howard county fairs. In 1856 the St. Louis Agricultural

and Mechanical Association started a series of agricultural fairs that continued after the end of the century.

From the first fair forward, sheep were attracted from Illinois and Indiana, as well as Missouri. Southdowns, Saxon Merinos, Silesian Merinos, French Merinos, and Spanish Merinos were classified separately. In 1871, more than 270 head of sheep were exhibited and classes were offered for Merinos, Southdowns, Leicesters, and Cotswolds. Some of the papers recriminated Missouri breeders for failure to exhibit at these early fairs, while others criticised the management for offering so much money for out-of-state exhibitors.<sup>43</sup>

During the Civil War the sheep industry did not flourish as much as elsewhere because of the open conflicts of the population. But throughout the whole decade, 1860-70, production increased approximately 45 per cent, from 937,445 head to 1,352,001. Differing from trends in other states, however, half of this increase occurred after the postwar break in the wool market, for the destructive guerilla warfare ended and the raiding bandits were dispersed.

This condition built up St. Louis as a wool center. From 1870 until after 1900 it was the second largest market for domestic wool in the United States. Production within the state became heaviest in the northeastern section, which normally produced 27 per cent of the sheep, and in the central section which usually lambed 25 per cent of the crop. The northwestern section developed through the fattening of out-of-state lambs on Missouri feedstuffs, and 18 per cent of the stock sheep were

<sup>42</sup> Henry Ancrum, Letter in *The Valley Farmer*, 2, No. 12 (December, 1850):364.

<sup>43</sup> E. A. Trowbridge, Professor, Animal Husbandry, University of Missouri, Columbia, Missouri. Letter to author, May 16, 1942.

developed in that section as an accompaniment of the feeding fraternity.

The southern area was less sheep-minded, and the eastern half normally showed only about 16 per cent and the western half about 14 per cent. Incidentally, the dog problem was always more serious there than farther north. As the early spring lamb business began to develop on a national basis, Missouri lambs were able to fit into the seasonal requirements after California, Tennessee, and Kentucky lambs had successively started to market. This practice stimulated the southern half of the state, although the methods of sheep management and earliness of marketing have been modified to a greater degree than the sheep population has increased.

#### MINNESOTA

Minnesota adopted sheep somewhat later than the neighboring states of Wisconsin and Iowa, but since its most significant period of settlement coincided with the onset of the Civil War, it participated in the general boom. A few sheep had come into the state in the late forties and early fifties,<sup>44</sup> but the Indian menace had not been overcome, and the problems of wolves and swamps were difficult to solve. Yet interest in sheep developed.

In 1853 the Minnesota Territorial Legislature authorized the foundation of a Hennepin Agricultural Society, which called for a convention in St. Paul, in January, 1854, to form "The Minnesota Agricultural Society." In 1855 this new society joined with the Hennepin County Agricultural Society to conduct a fair in Minneapolis, and J. G. Lennon of Hennepin won prizes on his Leicesters. Sheep were apparently not shown at the intervening fairs until 1860.<sup>45</sup>

As the sixties opened, however,

farmers from Wisconsin, Illinois, and farther east began to pour into the untouched agricultural areas. The virgin soils gave low production costs which offset the excessive costs of reaching the market. The federal Census of 1860 listed only 13,044 sheep with a surplus wool clip of nearly twenty thousand pounds, and the state officials were quick to stress the verdant grasslands and the free grazing. Sheep population increased rapidly, totaling 97,241 in 1864; 161,187 in 1865; and 193,045 in 1866.<sup>46</sup>

Like early Iowa, the principal trails for pioneer settlement entered the southeastern part of the state. The valleys of the Root and Zumbro rivers led to the rich prairies of Fillmore, Mower, Olmsted, Dodge, and Goodhue counties. From this region the industry pushed northwesterly through Steele, Rice, and Dakota counties, to the east bank of the Minnesota River. This was the area in which sheep production boomed in the early sixties.

Flocks were introduced both by small farmers and large operators. The LaCrosse Republican<sup>47</sup> reported in 1860 that on the largest farm in Houston County (in the very southeastern corner of the state), a Mr. Hunt of Looneyville on the Root River was testing wool profits on his 1,270 acres with a flock of two hundred sheep. A farmer named Faskins in Rice County wintered twenty-six ewes

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<sup>44</sup> Andrew Boss, Professor, Farm Management, University of Minnesota, St. Paul. Letter to author, July 15, 1940.

<sup>45</sup> Raymond A. Lee, Secretary, Minnesota State Fair, St. Paul, Minnesota. Letter to author, May 1, 1942.

<sup>46</sup> J. A. Wheelock, "Minnesota—Its Place Among the States," *First Annual Report of the Commissioner of Statistics for the Year Ending January 1, 1860*. His estimate for 1866 exceeds the revised figure for the peak year of 1867.

<sup>47</sup> *The Minnesota Farmer & Gardener*, 1, No. 2 (December, 1860):52, quotes the *LaCrosse Republican*.

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and raised forty-two healthy lambs from them. His neighbor, Charles Shields, wintered eighteen ewes and had twenty-seven lambs to show for his efforts.<sup>48</sup> In fact, Rice County boasted that it would be the banner sheep county in the state in 1861. The federal census of the previous year had credited it with eight thousand head, and twenty-five hundred to three thousand animals had been imported after the census was taken. Moreover prospects indicated eighteen thousand head by the end of 1861.<sup>49</sup>

In May, 1860, A. E. Chambers of Owatonna in Steele County purchased 250 French Merinos in Illinois, part of them originally from the J. D. Patterson flock of Chautauqua County, New York.<sup>50</sup> Chambers had previously run sheep in the latter state, and claimed that his flock was 25 per cent more productive in Minnesota than in New York. The spring of 1861 he sheared more than five pounds per head.<sup>51</sup> In the next county east, Dodge, T. J. Hunt of Concord reported that it cost him only \$500 to keep 500 half- to three-quarter-bred Merinos (two-thirds ewes), while his income from them was \$1,300.

Experts advised trailing sheep into Minnesota in the month of June, as the dust was light, the grass tender, and the shearing well out of the way. This practice was usually followed by the larger trail drivers. Two such men were Richard Healey, an Illinoian of some wealth who brought twelve hundred head into Olmsted County from New York State, and Russell Smith, who brought in five hundred head from Wisconsin.<sup>52</sup> These sheep were leased in bands of approximately five hundred head each, to three farmers named Cutting, Hatch, and Jones, near Rochester. Their wool clip realized \$1.60 per head and their lambs netted them 75 cents per head; while the cost of raising

was only \$1.25. This left a clear profit of \$1.10 per ewe. Intense efforts were made to induce settlers to take up wool growing as a standard enterprise.

Sheep had a direct connection with the first State Fair in 1860, held under the direction of the Minnesota State Agricultural Society on the grounds of old Fort Snelling. The fort, all buildings, and the reserve lands had been purchased from the War Department two years earlier by Franklin Steele, who hoped to subdivide it and sell it. But times were hard. In order to realize some return on his ninety thousand dollar investment, Steele installed a large flock of sheep on the eighty thousand acres, utilizing the old fort wall and the barracks and outbuildings for shelter in inclement weather. The fair of 1860 was held on this sheep ranch, the parade ground being utilized for the construction of the race track, and the various barracks that had been sheep-cotes being converted into exhibition halls.<sup>53</sup>

Although the growth of sheep production was tenfold between 1860 and 1870, the species continued to rank below the other classes of livestock. Yet this did not diminish the interest. After the southeastern area became fairly well settled, sheep spread westward along the Iowa line, then up the Minnesota River valley, and finally into the Red River country. Clay and Polk counties in the latter region both had valuable flocks before 1870 and have continued to

<sup>48</sup> *The Minnesota Farmer & Gardener*, 2, No. 5 (May, 1861) :132.

<sup>49</sup> *Ibid.*, 150, quotes the *Central Republican*.

<sup>50</sup> *Ibid.*, No. 8 (August, 1861) :236.

<sup>51</sup> J. A. Wheelock, *Second Annual Report of the Commissioner of Statistics*, 1862, 71.

<sup>52</sup> *The Minnesota Farmer & Gardener*, 1, No. 6 (June, 1861) :194, quotes *The Rochester Post* (August, 1860).

<sup>53</sup> Lee, Letter, May 1, 1942.

maintain leadership in that part of the state.

In general the growth of the industry in Minnesota was healthy. From the 13,044 of 1860, the ovine population increased tenfold to 132,343 in 1870; doubled to 267,598 in 1880; and doubled again to 589,878 by 1900. Much of the increase in the decade of 1890-1900 was due to the active efforts of Professor Thomas Shaw of the University Farm Experiment Station. He promoted forage crops and pasture rotations for sheep through farmers' institutes, station bulletins, and articles in the agricultural press.<sup>54</sup> His argument<sup>55</sup> included:

1. Returns can be obtained twice yearly—first in lambs, second in wool.
2. Pasture can be utilized that would otherwise be unproductive.
3. Weeds are normally destroyed.
4. Soil fertility is maintained.
5. Incidental benefits accrue, including food for the table, neatness of farm, and training for farm children in tending sheep.

Competition for quality of blood appeared at an early date. John S. Trigg, of Carlston in Freeborn County, exhibited a choice Merino flock at the County Fair near Albert Lea in 1860, and the farm press was boasting of the fine-wool quality of his bucks and ewes as the year 1861 opened.<sup>56</sup> John Ashton, south of St. Paul in Washington County, paid \$50 for a Spanish Merino ram and \$13.35 per head for fourteen Spanish and eighteen French Merino ewes.<sup>57</sup> Munger Brothers, also of Washington County, purchased a fine draft of registered French and Spanish Merino ewes from W. R. Sanford of Vermont.<sup>58</sup>

Wool improvement in Minnesota was rapid. Robinson<sup>59</sup> showed that the average clip in 1868 was less than three pounds per head, while it reached four pounds by 1872, and exceeded four and a half pounds by 1879. A prosperous woolen mill in Minneapolis not only

took all of the local wool production, but imported large quantities from Colorado.<sup>60</sup>

Breed arguments in the early days were quite lively. A farm paper correspondent<sup>61</sup> in 1861 wrote that John Silk, of West St. Paul, was raising a small flock of "coarse-wool" sheep, and quite a number of lambs for the St. Paul market. He was selling these lambs in June at his own farm gate for five dollars per head, which "friend Silk thinks is more profitable than wool raising." Silk doubted whether the fine-wool breeders of Washington County could earn as much from their flocks, but the correspondent sagely hinted that if the war continued, Atkinson or Munger (fine-wool breeders) might win the argument.

Another mutton enthusiast of the period was Joseph Porter of Northfield, who had a mixture of Southdown, Cotswold, and "native" sheep, but who believed that the Cotswold withstood the winter cold better. These arguments stimulated lively trading. One well known character of the day, M. L. French, who lived across the river from St. Peter in Nicollet County, sold his entire flock of eighty-nine head of American Merinos in June, 1861, and started east to buy another.<sup>62</sup> Large flocks continued to come in throughout the fall. A Mr. Jennison of Minneapolis

<sup>54</sup> Boss, Letter, July 15, 1940.

<sup>55</sup> Thomas Shaw, *Sheep Husbandry in Minnesota*, 9.

<sup>56</sup> *The Minnesota Farmer & Gardner*, 1, No. 3 (January, 1861):72.

<sup>57</sup> *Ibid.*, No. 4 (February, 1861):109.

<sup>58</sup> *Ibid.*, 109.

<sup>59</sup> Edward Van Dyke Robinson, "Economic History of Agriculture in Minnesota," *Bulletin*, 105.

<sup>60</sup> *Ibid.*, 80.

<sup>61</sup> *The Minnesota Farmer & Gardner*, 1, No. 5 (May, 1861):141.

<sup>62</sup> Wheelock, *Second Annual Report, etc.*, 1861, 71.

drove more than 600 sheep, mostly Merinos, to his farm fifty-odd miles west of McLeod County, while an Olmsted County farmer brought 750 head from Illinois.<sup>63</sup>

The postwar drop in wool prices slowed down the fine-wool industry of the state to a lesser degree than elsewhere. Sheep population totaled 182,284 head in 1867,<sup>64</sup> though this had dropped by fifty thousand head in 1870. The boosters of the earlier days were worried, and a state statistician shamed the Minnesota growers by showing that Iowa had 2.27 sheep per capita, while Minnesota had only 0.3. But Minnesota was gaining more rapidly in human population at that date than Iowa, and sheepmen were beginning to feel the effect of the later spring and other seasonal limitations.<sup>65</sup> The lambing season was necessarily so late that the Minnesota growers suffered at the market in competition with states more fortunate from a weather standpoint.

Yet the demand for sheep was strong, and as in Missouri, a feeding industry developed. The commercial phase of the feeding industry began in the eighties, when wheat raising in the state was greatly expanded.<sup>66</sup> The by-products of the grain fields—wheat screenings, weed seeds, etc.—were useful in finishing sheep, particularly those from the Montana ranges. Feed yards were established in New Brighton and South St. Paul in the late eighties, and there was some commercial feeding at various points near the grain fields in the western part of the state. As the elevator and milling business concentrated in the Twin Cities area, the screenings were available at those points, and the larger part of the feeding centralized there. During the early nineties this averaged a little over two hundred thousand head<sup>67</sup> and by 1900 varied between a third and a half-million head. Minnesota

had become predominantly a mutton sheep state by 1910 as far as its farm flocks were concerned, and the western bands introduced were all fattened for market.

#### MICHIGAN

In 1840 Michigan had just under a hundred thousand sheep but by 1850 there were more than seven and a half times as many, shearing approximately two and a half pounds per head. A large number of flocks of registered Spanish Merinos, brought from Connecticut and Vermont, proved relatively unprofitable and attempts to better them were made in two directions. In Oakland, Macomb, and Washtenaw counties, the breeders tried to improve the wool by the importation of Saxony sheep from Germany,<sup>68</sup> while in other sections they used American Merinos to replace the Spanish strains. Quite a large number of Merino breeders, however, recognized the trend toward mutton, and between 1850 and 1870 French Merinos were crossed extensively on the Spanish stock.

The war decade added three-quarters of a million head, so that the Census of 1870 recorded 1,985,906 sheep. Each decade thereafter saw additional numbers until by 1900, two and three-quarters million sheep were listed. This was the peak, and a decline set in until the

<sup>63</sup> *The Minnesota Farmer & Gardener*, 1, No. 6 (June, 1861):169.

<sup>64</sup> *Minnesota Statistics for 1869*, 44. The peak figure for 1867 is somewhat less than earlier figures given for 1866 but there is little question that 1867 was the peak year.

<sup>65</sup> Lester B. Shippee, "Social and Economic Effects of the Civil War, With Especial Reference to Minnesota," *"Minnesota History Bulletin*, 2, No. 6 (May, 1918):399.

<sup>66</sup> Boss, Letter, July 15, 1940.

<sup>67</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 818.

<sup>68</sup> George A. Brown, Professor, Animal Husbandry, Michigan State College, Lansing. Letter to author, April 29, 1942.

Census of 1940 registered only 857,252 head. In the twenty years between 1850 and 1870 the average fleece weight increased from 2.5 pounds per head to 4.39 pounds. About this latter date the practice of washing sheep previous to shearing was discontinued, hence much of the apparent improvement was due to the fact that recent figures are based on wool in the grease.

When the wool boom burst in 1868 thousands of Michigan sheep were slaughtered for their pelts and tallow (soap stock). Bands of five hundred to a thousand head were driven to slaughtering places alongside the highway where sheepskins by the thousands were hung on the fences to dry.<sup>69</sup> Few general farmers held onto their sheep and thousands were sold for a dollar a head. The sheepmen that continued in business seized the opportunity to clean up foot-rot and grubs. Methods of controlling these diseases, except by getting rid of the infected animals, were not known at that date.

Fundamental changes took place in the distribution of sheep and in their character as well. The three tiers of southern counties possessed most of the flocks, with the best fine-wools grouped south of the region from Jackson to Detroit. Between 1860 and 1875, the wool business boomed in this area with setbacks in 1867-69 and in 1873. Vermont Merinos were shipped into this district in great numbers during the war and again during the early seventies. Atwood, Hammond, Stickney, Rich, Jewett, Randall, and other breeders established contacts with local sheepmen and conducted stud ram sales from their farms. Thus S. W. Jewett used the facilities of H. K. Abbott, a Michigan breeder near Hillsdale:

Jewett . . . sent a man by the name of Hewitt who would bring a carload of rams, about

sixty all partitioned off, each one by himself. These rams were sold to the farmers as they would come to see them on my father's farm "Mutton Ridge" . . . I never saw a farmer give a check for one of these rams. He would pick out the ram, put his hand in an overall pants pocket, take out a roll of greenbacks all the way from \$100 to \$500, and pay for the ram. They wanted sheep that would weigh 60 to 80 pounds (shorn) and shear 15 to 25 pounds. The wrinkles and folds on the rams were a wonderful sight.<sup>70</sup>

Michigan breeders had plenty of courage. Henry Huff, of Jonesville in Hillsdale County, paid Jewett three thousand dollars cash for a ram. The ram died uninsured and Jewett shipped him another at five thousand dollars, "the most beautiful sheep I ever saw."<sup>71</sup>

It was customary to "rent out" small bands of sheep to different farmers.

My father rented (out) a thousand sheep and kept about eight hundred on his farm. . . . The thousand sheep were rented in small lots, from ten to twenty head, not over fifty to one man. In renting twenty sheep, there would be twelve ewes, one ram, and eight yearling wethers. They were rented for three years at one and a half pounds of wool per head (annually); the wethers to be returned at three years old, the ewes (turned back) to be of the same ages (as those originally rented). . . . The township of Reading (Hillsdale County), six miles square, had at one time, I believe, nearly ten thousand sheep. A farmer with 160 acres would have one to two hundred head. A small farmer would have twenty-five to fifty sheep.<sup>72</sup>

As the industry recovered after the panic of 1873, and as logging operations progressed in the northern counties, some attempts were made to establish flocks on the cut-over lands. Where pine had been removed the land was usually too poor to support flocks, but hardwood lands proved more satisfactory. In any

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<sup>69</sup> H. C. Abbott, Letter to author, October 2, 1939.

<sup>70</sup> *Ibid.*

<sup>71</sup> *Ibid.*

<sup>72</sup> *Ibid.*

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case the grass season was relatively short and large quantities of cured feed were necessary to carry the flocks through the year. Finally, sheep proved unable to compete profitably with cattle when wool prices were unfavorable.

Southern Michigan provided a convenient point from which to start trail bands into other states. Throughout the late fifties many thousands were driven into Wisconsin and northern Iowa. By the early sixties some were being taken to Minnesota and eastern Kansas, most of the latter being purebred or high grade animals. In 1861, Ira H. Butterfield, Jr.,<sup>73</sup> accompanied six hundred French and American Merinos and some purebred Shorthorns all the way to California, as representative of his uncle, J. D. Patterson of Westfield, New York.

Michigan had a good quality of sheep at all times. Her earliest flocks were based on registered or high grade Merinos, and only a few farmers used common or "native" sheep. Just before the Civil War mutton breeds began to be introduced, the best stock from Ontario and New York State being chosen. Coarse-wooled varieties had been increasing for a few years before this,<sup>74</sup> particularly Leicesters which made a popular cross with the Merino.<sup>75</sup> About 1857 eastern demand for mutton became pressing, and Ann Arbor alone shipped sixteen hundred head to New Jersey that year, followed by twenty-seven hundred head in 1858, and two thousand head in 1859.<sup>76</sup> In 1867-68, after the break in wool prices, long-wooled rams were again imported from Ontario, the majority this time being Cotswolds.

When range sheepmen became interested in Rambouilletts about 1880, the breed also grew in favor in Michigan. During the two decades that ensued, large numbers of Von Homeyer Ram-

bouilletts were imported. These sheep were concentrated principally in Oakland, Washtenaw, Livingston, and Ionia counties. The flocks of Thomas Wyckoff of Orchard Lake, A. A. Wood and Sons of Saline, and E. M. Moore of Davisburg became outstanding in this trade.

Several attempts were made to form a general state wool growers' association. In 1867 a very active one was set up that held annual state shearing contests at Jackson for a number of years. It was succeeded in 1878 by the Michigan Sheep Breeders' and Wool Growers' Association which was supposed to include all breeds, but which centered so strongly on Merinos that it eventually resulted in the establishment of a registry association. Between 1890 and 1900 the demand for American and Delaine Merino rams declined, and by 1900 many of the best flocks had been dispersed or replaced by Rambouilletts.

The market feeding of mutton sheep began as a permanent enterprise in southern Michigan about 1883. In the early seventies numerous farmers fattened lambs of their own production to such a quality that dressed Michigan lamb acquired a good reputation on the eastern markets, but more aged ewes and wethers were fed than were lambs.<sup>77</sup> Pioneer feeders who operated over a long period of years included James Hogan, William Ladd, and William Dewey, but Clark states that the greatest volume of feeding

<sup>73</sup> Ira H. Butterfield, Jr., "Michigan to California in 1861," *Michigan History Magazine*, 2 (July, 1927) :392-423. See Biographical Appendix.

<sup>74</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 617.

<sup>75</sup> *Ibid.*, 613.

<sup>76</sup> *Ibid.*, 617.

<sup>77</sup> John T. Clark, Clinton, Michigan. Letter to Professor George A. Brown, Michigan State College, May 15, 1942.

was always done by the "in-and-outers." He further writes:

(In the late seventies) more lambs were bought and fed locally, eventually replacing to a great extent the wethers. Then, in the eighties, came the range lambs, lacking some (what) in breeding and quality, (but with) better constitutions and freer from parasites. Then came the scab. Following that, innumerable types of internal parasites, narrow spread between feeders and fat lambs, commission men, speculators, railroads, stock yards, in-and-out shrimps, etc.,—all stood by for their cut.<sup>78</sup>

It was not until 1883 that commercial feeding through the establishment of feed yards and the in-shipment of western wethers for fattening developed. Along the Lake Shore and Michigan Southern Railroad across the southern tier of counties, in the vicinity of such towns as Jonesville, Hillsdale, Quincy, Coldwater, and Bronson, a number of large operators were located.

One year (1889) a brother of P. G. Scott (Rocky Ford, Colorado) and myself sold to Quincy (Michigan) feeders a thousand wethers and two thousand lambs. . . . I saw these sheep and lambs on feed. The wethers were placed on self feeders, but the lambs were in pens of twenty-five each, and there were twenty-five places in the rack where they were fed hay and grain. . . . These lambs were small, weighing about fifty pounds. After they were fed, they were shipped to Buffalo (New York), the best sheep market of the United States at that time, and they weighed ninety pounds.<sup>79</sup>

Mutton crosses on the Merinos continued up to the first World War, but there was a gradual shift from the long-wooled breeds to the middle-wools—Shropshires and Hampshires replacing Cotswolds, Lincolns, and Leesters. Under the direction of the Michigan Agricultural College at Lansing, programs to establish the breeding and production of high quality mutton lambs have been conducted all over the state.

#### WISCONSIN

French trappers brought the first sheep of Wisconsin into the Green Bay region. Their efforts had little permanent

effect, though, for they found it much simpler to buy woolen underwear and hosiery from the Hudson's Bay Company's trading post than to keep flocks themselves.<sup>80</sup> The two pioneer roads to cross the state—the old military road from Green Bay to Prairie du Chien and the well known trail between Green Bay and Chicago—were not used for the driving and distribution of sheep, though many cattle traveled them. The military trail passed through country that was too swampy for the satisfactory movement of flocks and the second was east of the natural sheep areas. A few of the settlers from New York and Vermont brought sheep via the Great Lakes to Milwaukee, Kenosha, and Racine and settled in the country a few miles back from the lake shore.

Walworth County was the first to receive other than Canadian sheep, when drovers turned north off the old Chicago-Galena trail to reach the southern Wisconsin prairies. Much of this region lacked satisfactory landmarks, and the first road in the county was blazed by dragging the top of an oak tree twelve miles, southwestward from Spring Prairie to Delavan. This ultimately made the route from the old Green Bay road via Burlington, Spring Prairie, and Delavan, fully as popular as the route from the Galena road along the Rock River. The farmers that took up sheep most enthusiastically were located in Walworth, Waukesha, Rock, Jefferson, Green, and Dane counties.

The first sizable flock in the state was driven into Walworth County from Illinois in 1837,<sup>81</sup> but the increase in

<sup>78</sup> Clark, Letter, May 15, 1942.

<sup>79</sup> Abbott, Letter, October 2, 1939.

<sup>80</sup> Dr. Joseph Schafer, Secretary, State Historical Society of Wisconsin, Madison. Interview with author, December 26, 1940.

<sup>81</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 639.

numbers was not rapid. The 1840 Census recorded 3,462 sheep, and ten years later there were still less than 125,000 head. While most of the sheep imported were of mixed blood, numerous Merinos were introduced from the southwestern region during that decade. The first registered flock went up the Rock River to Beloit, driven by Lewis Clark of Genesee County, New York, in 1852.

Many purebreds were brought in from Vermont during this decade, and growers found, to their delight, that the lambs matured nearly a third heavier in weight than their imported parents. Centers of sheep raising developed at Waukesha, Whitewater, Janesville, Juneau, Neosho, and Burlington. There were sixteen woolen factories in the state as the Civil War began, and by 1868 there were more than fifty, producing woolen goods valued at above a million dollars annually. State estimates indicated two million sheep that year, but the dropping market prices reduced the wool clip of 1869 40 per cent,<sup>82</sup> and the Census of 1870 showed very little over a million sheep on Wisconsin farms.

The recovery of wool prices in 1871-72 again stimulated increases, and some large flocks were introduced into the newly settling region northwest of Milwaukee. Eli Stinson of Oshkosh sheared seventeen hundred Merinos in 1872 and ran as many as two thousand head during most of the decade. There was a marked increase in the number of Wisconsin sheep up to 1880, nearly 25 per cent. Due to Merino crosses, wool yields went up even more rapidly, about 70 per cent. Part of this increase resulted from the careful selection practiced on the Merino grade flocks.

The first purebred long-wool rams were introduced into Wisconsin about 1870, George Harding and A. O. Fox of Waukesha purchasing a breeding flock of Cotswolds from Abner Strong,

Abingdon, Illinois.<sup>83</sup> George Harding showed these sheep at the Wisconsin State Fair and at county fairs all over the state. He sold a large number of rams as a result of the acquaintance farmers got with the breed. Contemporaneous with Harding and Fox was the long-wool, Cotswold-type flock of Edward Porter imported from Canada.

In 1876 George McKerrow, of Pewaukee, bought a flock of purebred Cotswolds from the Springbrook Stock Farm just established at Burnett Junction, Wisconsin. This flock was introduced from Ohio by H. B. Sherman, owner of the farm, who was then manager of the Leland Hotel in Toledo. For many years Cotswolds were in the greatest demand as they provided the average farmer a popular cross on the Merino stock and produced a "Corriedale" type.<sup>84</sup> Ram lambs sold at twenty to twenty-five dollars per head and the flocks of Waukesha County and of St. Croix County, east of St. Paul, Minnesota, both sold large numbers of lambs for commercial crosses.

In the nineties, Harding imported numerous Cotswolds from Canada. The break in wool prices following the Cleveland election of 1893 had turned both farmers' and ranchers' attention to the Cotswolds with their heavy fleece and superior mutton qualities. About 1898, Harding also began to import large consignments of Cotswolds from England, and for a decade and a half Harding and Son sold hundreds of Cotswolds into the west and northwestern sections of the United States for crossing on the grade Merino flocks.

<sup>82</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 644-45.

<sup>83</sup> Frank W. Harding, Chicago. Letter to author, May 14, 1942.

<sup>84</sup> George McKerrow, Pewaukee, Wisconsin. Letter to author, April 30, 1942.

Mutton breeds were not imported in large numbers, however, until about 1884-90. Carman<sup>85</sup> reports that in 1883 only one-fourth of the sheep in the state were of mutton breeding, while in 1890 about half were of these bloods. The most popular breed during this period was the Shropshire, although Cotswolds, Oxfords, Hampshires, Southdowns, and Cheviots had their supporters. The leading Shropshire, Oxford, and Cotswold flocks were located in Waukesha County, while there were several excellent Hampshire and Southdown establishments in Dane County.

In 1878, George McKerrow bought a purebred Southdown flock from "Long John" Wentworth of Summit, Illinois, and after "Long John's" death selected fifty of the tops, nearly all of which were sired by the two rams imported from Sandringham.<sup>86</sup> Tradition has it that the Prince of Wales selected these rams personally from Queen Victoria's flock and sent them to Wentworth in return for the hospitality extended the Prince while on his visit to the United States, just before the Civil War. This became the foundation of McKerrow's flock that held championship show records for twenty years.

In the same year McKerrow began importing Oxfords from Canada and a decade later a few from England. At the Chicago World's Fair in 1893 the McKerrow Oxfords won the English Association's fifty dollar gold-lined cup for the best Oxford exhibit, and the thirty dollar cup for the best ram. About 1882 McKerrow began to introduce Shropshires from Canada and later from England. This flock was dispersed in 1894 when McKerrow became head of the Wisconsin Farmers' Institute, but in 1898 a new flock was started, and from 1900 to 1914 annual importations of Oxfords and Shropshires were made from Britain.<sup>87</sup> Through the McKerrow

sheep a tremendous impression was made on farm flocks throughout the entire Middle West, while the Harding Cotswolds influenced the range bands of Montana, northern Wyoming, Idaho, Washington, and Oregon.

Sheep numbers dropped somewhat in the latter part of the eighties because of the declining interest in Merinos, but the census showed a peak in 1900 when 1,675,453 head were recorded. Thereafter the breeding flocks decreased and the feeding of western wethers was adopted all across southern Wisconsin. One of the leaders in lamb-fattening was William F. Renk of Sun Prairie, who also pioneered in Hampshire breeding. By 1940, the stock-sheep population of the state was just under 350,000 head.

#### KANSAS

Farm flocks first appeared beyond the Missouri River in the pre-Civil War settlements west of Kansas City. The small bands of five to twenty head that had characterized farms in New England were equally characteristic of the settlements in the valley of the Kansas River, especially around Lawrence and Tonganoxie, while there were a few flocks in the neighborhood of John Brown's Osawatomie. Sheep were a part of farm subsistence, and no attempt was made to grow them commercially during the fifties. Throughout the Civil War, the numbers did not expand appreciably because of bandit raids and guerilla warfare. Then the big cattle drives to Abilene, Wichita, Dodge City, and farther west forestalled settlement by larger flocks that might have been driven from the East.

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<sup>85</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 651.

<sup>86</sup> See page 164.

<sup>87</sup> McKerrow, Letter, April 30, 1942.

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Through the late seventies and up to the mid-eighties, the character of Kansas sheep growing changed rapidly. Buffalo grass gradually gave way to the taller-bladed grasses, like bluestem, suitable for both hay and grazing, and sheep and cattle benefited by the change. Not only could hay aid in the wintering, but the yield of feed per acre increased remarkably. In the valleys, clover, alfalfa, bluegrass, and timothy were introduced. Kansas streams were numerous, and flocks, even on the open range and undeeded government land in the western part of the state, traveled only short distances for water. Where surface water was unavailable it was usually not far underground. Furthermore, the climate militated against parasites, and Kansas sheep were unusually healthy.

The early agricultural writers looked on the state as an ideal region for sheep expansion. During the late seventies, flockmasters trailed bands from the West and Southwest to meet the railroads, and they spread out north and south of the tracks after the Colorado line was crossed. Average western flocks ran about a thousand head, but varied from five hundred to five thousand animals.

Since the majority of the trailed cattle continued on northward or were shipped for slaughter from the Kansas cow towns, the amount of friction between cattle and sheep men dropped to a minimum. Both felt common cause against the "nester," and few cattlemen and sheepmen tried to stay in the same country even when their natural paths of movement crossed. Sheep raising during this period seemed a bonanza, since a dollar invested in sheep yielded as great a return as two dollars invested in horses or cattle.<sup>88</sup>

Flocks introduced from the eastern states usually improved in constitution and vigor, while flocks brought in from the West and Southwest were soon

shearing bigger fleeces and killing out heavier carcasses. From one-fourth to one-third of the flocks went to slaughter annually and surplus ewe lambs sold to the neighbors for \$2.25 to \$4.00 per head.

In the mid-eighties the western flocks began to break up. The prime reason was the gradual occupation of government lands, but lack of wool markets, extremes of temperature, and attacks of wolves also proved handicaps. Wool freights were 'way out of proportion as it cost about five times as much to ship fleeces as livestock. Complaints were also directed against unreliable commission agents handling both wool and live animal sales; against undue discrimination against Kansas wools; and against excessive numbers of middlemen between the grower and the woolen manufacturer. By 1886 wool prices had dropped to an extremely low level, and since mutton production on the range was not understood at the time, most of the western Kansas sheepmen began liquidating their flocks. All of the larger operations gradually disappeared. Sheep numbers declined throughout the western part of the state until a low point was reached in 1920.

The election of 1893 returned the Kansas sheep industry to a farm basis again. Flocks were not as small as before the Civil War but they averaged only twenty-five to fifty head, with the largest flocks reaching four hundred. Accompanying this change was a shift to the use of mutton rams. French Merinos were popular with those still making their greatest effort in wool but about 50 per cent of the rams purchased were of English breeds. Before the turn of the century the breeds, according to numbers, ranked about as follows—Shropshires, Cotswolds, Southdowns, Lincolns,

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<sup>88</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 874.

Oxfords, and Hampshires.<sup>89</sup> Shortly after 1900 the long-wools and Oxfords dropped out, and by 1915 the Hampshire vied with the Shropshire for the lead.

For many years the lamb crop proved a problem. The foundation ewes were drawn from the Southwest where twinning on the range was a handicap, and fully 70 per cent of the farm flocks were of this Merino-New Mexican cross. Continual efforts at improvement gradually produced results and by 1915 the percentage of lambs dropped compared favorably with other states. In general the eastern and southeastern counties in the state had the largest population of breeding flocks, but there were also a few counties scattered throughout the short grass country that were popular for wool growing as well. Kansas has never been a big sheep-producing state. The 1901 ratio of one farmer in fifty owning a flock is still the top record.

About 1888-90, the sheep-feeding business began to develop rapidly in Kansas. In the valley of the Kansas River and its tributaries, feedlots were located at Russell, Abilene, Solomon, Ogden, Lebanon, Wamego, and St. Mary's. In the valley of the Arkansas and its tributaries, feedlots were located at Hutchison, St. John, Larned, Wellington, Wichita, Peabody, Hope, and Eldorado. The chief stimulus for this feeding arose in market demand. From January through May it was difficult to supply consumers with finished mutton, and the price differential between that date and the close of the range marketing season was more than sufficient to make feeding worth while. In Kansas most of the feeding was started by Kansas City and Chicago packing families, but it soon passed into the hands of private sheepmen.

In 1917-18 some of the New Mexico and Colorado sheepmen began leasing winter wheat fields on which to finish range lambs not ready for slaughter by

November. Grazing on these fields put them in market condition by January first. At the trough of the depression in 1932 the practice had become widespread, some Texas sheepmen and commercial feeders following the system as well. In the half decade centering around 1940 a third of a million western and southwestern lambs were handled in this manner. The practice spread into the Panhandle wheat fields of Texas and Oklahoma as well.

#### NEBRASKA

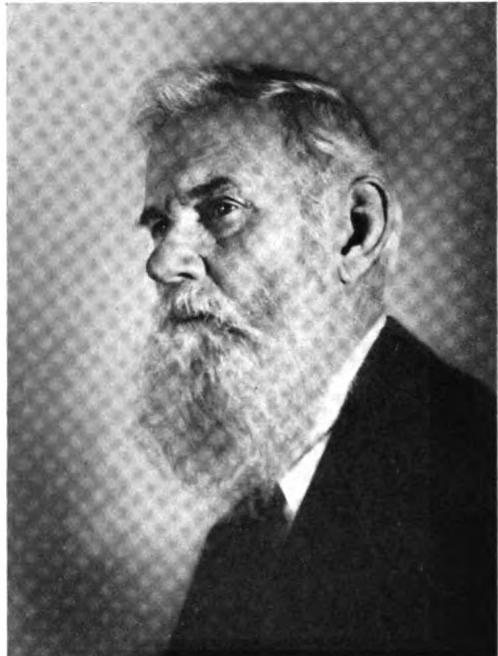
The general experience in Nebraska regarding the introduction of sheep paralleled that of Kansas. Sheep began crossing the state along the Platte and North Platte rivers in the late forties but merely traversed it. It was not until the eve of the Civil War that flocks were permanently located in the territory, down in the southeastern section close to the bank of the Missouri River. Numbers were not great, as the Census of 1860 reported only 2,355 head. The westward progress of the Union Pacific encouraged the establishment of a few flocks along the Platte route but even in 1870 only 22,725 head were enumerated.

During the seventies, the wave of New Mexican sheep that swept into Colorado and southeastern Wyoming overreached into the western area of Nebraska and several flocks were established in the Ogallala-Sidney-Scottsbluff sector, and along the old route to the Black Hills from this region. One or two New Mexican operators came in above Gehring and Scottsbluff, and the Bay State Cattle Company experimented with a few sheep along with their cattle.

The Census of 1880 showed just under two hundred thousand sheep, with the

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<sup>89</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 875.



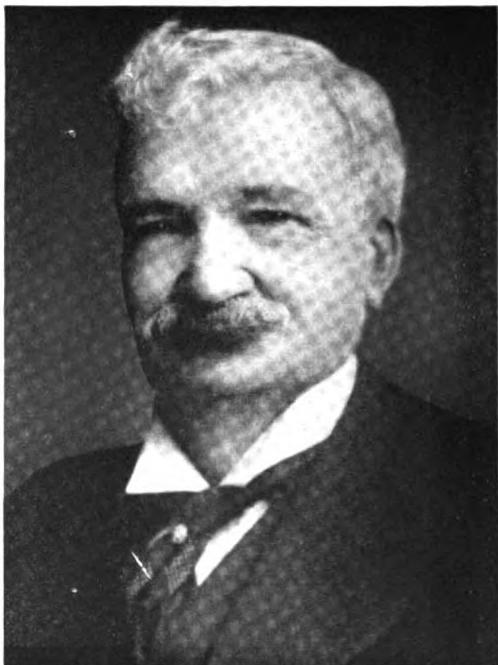
PANEL 36—Four Famous Operators on the Great Sheep Trails Eastward:

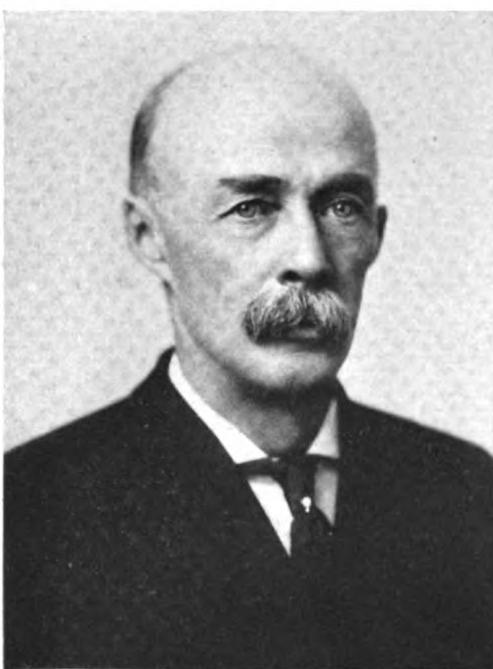
(*Above*) L. L. Ormsby (pp. 279, 618).

(*Above Right*) A. J. Knollin (pp. 281, 351, 615).

(*Below Right*) Patrick ("Patsy") Healy (pp. 277, 323, 612).

(*Below*) J. M. Howell (pp. 277, 614).





PANEL 37—A Quartette of Personalities on the Sheep Trails:

(*Above*) Frank Hershey of Nebraska (pp. 277, 613).

(*Above Left*) J. D. Wood of Idaho (pp. 273, 297).

(*Below Left*) J. B. Long of Montana (pp. 279, 617).

(*Below*) Dr. J. M. Wilson of Wyoming (p. 324).

trend toward cattle already developing rapidly in the western section. By the mid-eighties the range flocks of the West had practically disappeared in Nebraska, but farm flocks were getting more numerous and the early experiments in sheep feeding were taking place. As the decade closed, sheep feedlots were operating in the valleys of the Platte, Loup and Wood rivers, and the season of 1890-91 saw more than half a million head on feed in these districts.

The larger portion of the early sheep fed were trailed in from New Mexico, Colorado, Wyoming, Idaho, and Oregon. Naturally, as the country settled, the feedlots were established farther and farther west. In the early eighties considerable feeding was done around Fremont and Columbus, but by the close of the decade it had become centered around Grand Island, ranging from Central City to Lexington and Kearney, with the biggest concentrations at Gibbon and Wood River. Over at Jansen, near Beatrice, Peter Jansen was feeding from twenty-five to fifty thousand head annually.

Farm flocks, too, were developing during the same period. The entire southeastern section had flocks evenly scattered, ranging in size from ten or a dozen head to three hundred or more. Where the farmers specialized in sheep, especially in the region seventy-five to a hundred miles west of the Missouri River, the flocks ran from five hundred to two thousand head. Most flocks of the latter size were run under the control of a herder, rather than under fence, and the owners took advantage of the open government lands. Weather extremes were severe, blizzards frequent, snows often deep, and annual losses averaged 1 to 2 per cent, with deaths in case of extreme storms reaching 5 to 10 per cent. Many Nebraska farmers went through the same experience as those

before them, ere the problems of prairie sheep husbandry were solved. Death losses from wolves and dogs also ran high, reaching 10 per cent in the eastern part of the state,<sup>90</sup> and averaging around 5 per cent for the state as a whole. Worthless curs frequented the eastern section, while coyotes abounded in the western and northern districts.

While Merino blood was favored in the western flocks, the mutton breeds were preferred in the east. Shropshires were ably promoted by J. T. Allen of Lexington and Robert Taylor of Abbott. They proved the most popular breed except for the Merinos, followed closely by the Cotswolds up to 1900. Southdowns and French Merinos also were introduced, and around 1900 both Oxfords and Hampshires. Sheepmen in the eastern part of the state paid a good deal of attention to fecundity, and in the nineties were getting a 100 per cent lamb crop or better. In the western section 85 per cent was considered a satisfactory average.

#### SOUTH DAKOTA

Sheep entered the farming districts of South Dakota much later than in Nebraska and Minnesota. As the region spreading north from Norfolk and west of Sioux City and Sioux Falls began to stabilize in the late nineties there was a marked increase in interest in farm flocks. However, the chief stronghold of the industry was in the James River Valley after the settlers discovered the folly of trying to grow wheat continuously. The first State Fair at which sheep were exhibited in South Dakota was held in Yankton in 1897. Classes were offered in Merinos, long-wools, Southdowns, Shropshires, and Hampshires.<sup>91</sup>

<sup>90</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 839-40.

<sup>91</sup> C. B. Hansen, Secretary, South Dakota State Board of Agriculture, Huron. Letter to author, April 24, 1942.

The western farming section was more of the range nature, but it was not until 1889 that this region was made available for sheep, when one-third of it was ceded by the Sioux Indians to the government and sheep were permitted to enter. The principal breeds from the opening of the territory were Merinos and Shropshires, or their crosses. Shropshire rams predominated in the eastern part of the state and Merinos in the western part. Farm flocks were relatively large in size, two to four hundred head, while the specialized sheepmen farther west seldom ran under a thousand. Large flocks were characteristic of the region north and northeast of Belle Fourche in the western part of the state. However, they did not outnumber the farm flock area in the east from the standpoint of total sheep population, dropping behind it on the average by 5 to 10 per cent.

#### NORTH DAKOTA

Sheep never penetrated very far into North Dakota from the east. When the Red River Valley was settled with sheep on the Minnesota side late in the Civil War, some flocks crossed over into North Dakota. These were strictly farm types of Merino breeding and were held on a wool basis alone. The western part of the state was settled from Montana, and conflicts of interest between cattle and sheepmen were numerous. In the early eighties the Marquis de Mores raised sheep in the Badlands near Medora, but his fellow cattlemen did not look on the practice with favor during the drier seasons, and he soon abandoned it. Another pioneer sheep ranch in the western part of the state was the Stephens' Ranch near Stanton, which was also established in the early eighties.<sup>92</sup>

Throughout the nineties the Raes operated a large flock of sheep near Fargo, and Dugald and James Campbell

operated a large ranch seventy-five miles southeast of Bismarck. A number of Montana and Minnesota sheepmen saw the opportunity of utilizing stubble grazing and screenings, and Montana sheep that were headed for eastern markets were stopped off at the wheat fields for finishing. During the period 1888 until 1904 or 1905 this business was conducted in large volume. But when the feedlots were established nearer the markets and lambs began to be marketed off their mothers, the operations declined. From the decade just preceding World War I until 1925, very little lamb feeding and finishing was done. But a great increase has taken place since 1930. The quality of sheep so fed always has been high. In 1894 James Rae took a shipment of twenty-seven hundred head from the North Dakota stubble fields to Great Britain, and some of them withstood the trip sufficiently well that they were graded as prime English mutton.<sup>93</sup>

Between 1900 and World War I, sheep feeding in the Red River Valley declined. Following the War, however, extensive efforts were made to build up farm flocks all through the eastern half of the state. Various schemes for financing farmers were developed, and from 203,000 stock sheep on farms in 1921, numbers increased to 1,113,000 in 1942 and 1,204,000 in 1943. Sheep proved to be the most profitable of all farm animals in North Dakota and Minnesota. The University of Minnesota<sup>94</sup> reported on more than four hundred farms that for every one hundred dollars worth of feed

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<sup>92</sup> Russell Reid, Superintendent, State Historical Society of North Dakota, Bismarck. Letter to author, February 16, 1940.

<sup>93</sup> J. H. Shepperd, President Emeritus, North Dakota Agricultural College, Fargo. Letter to author, September 30, 1938.

<sup>94</sup> *Cooperative Studies* by the Division of Agricultural Economics, University of Minnesota, University Farm, St. Paul. March to May, 1942.

used, the following amounts of money were returned by each species of livestock:

Sheep .....	\$ 245	Beef cattle ..	\$ 188
Dairy cows ..	219	Chickens ...	184
Turkeys ....	193	Hogs .....	160

Thirty-two per cent of the income from sheep came from the sale of wool, and the balance from lambs and old sheep.

#### EAST OF THE MISSISSIPPI

Back in the older farming states, the hazards in sheep production that existed after the close of the Civil War gradually forced Indiana and Illinois to mutton sheep, and Ohio and western Pennsylvania to wool sheep. For example, Merino development stopped in Indiana about 1880, and in 1900 Merinos were listed in only five counties. The long-wooled breeds also dropped out about 1880 due to difficulty in withstanding weather conditions.<sup>95</sup> The Southdown was popular from 1860 to 1890 but it too lost ground, due to its small size and light shearing. The Shropshire was more successful, and in 1900 was listed in ninety of the ninety-two counties. After 1920 the Oxfords and Hampshires began to develop, and interest commenced to revive in the Southdowns.

Two specialties developed in New York and New England. The first was the development of the so-called "Easter Lamb" industry, which dated back to the eighties and the days of the heavy wethers. Many consumers felt that lamb was of sufficient delicacy at the end of the winter feeding period so that they would pay appreciable premiums for milk lambs. This raised the problem of an abnormal breeding season. The Dorset Horn breed had an earlier or longer oestral period than most breeds, and by crowding the ewes with feed it became possible to advance the breeding dates from October and November to

the end of July and early August. Furthermore, the ewes were heavy milkers and lambs dropped as early as this were in fine condition for the Easter trade.

Much of this trade started sporadically, farmers with early breeding flocks making connections with the metropolitan hotels. These lambs were typically farm dressed and as an identifying trademark they were always wrapped in their own cauls and shipped direct to the hotel or restaurant. From 1896 to 1910 they commanded prices two or three times as great per pound as the heavier mutton marketed during the Easter season. Centers of Easter lamb production were found in upstate New York, northwestern Pennsylvania, and northeastern Ohio. Gradually, as the Kentucky-Tennessee lambs increased in availability for the early spring markets and the California lambs were shipped east, the competition became too great for the Easter lamb growers, and since 1929 the industry has practically disappeared.

A second unusual characteristic of sheep production in the older states was the development of the wild breeds isolated on islands off the Atlantic Coast.<sup>96</sup> These island sheep attained a flavor that made them extremely popular in the fall markets of the East. From about 1870 to 1905 they held a unique place in the trade. The islands contained no shelter except low evergreens, and because the wind swept the grazing free of snow, it was usually unnecessary to provide winter feed.

Typical of the industry was an island, located south of Jonesboro, Maine, in Englishman's Bay, that was purchased by Gilbert Longfellow of Machias in

<sup>95</sup> Claude Harper, Professor, Sheep Husbandry, Purdue University, Lafayette, Indiana. Letter to author, April 27, 1942.

<sup>96</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 337-39.

1874. This island contained several hundred acres of good tillable land and two hundred acres of grass pasture. Half of the island was heavily wooded, open to the east, and thousands of cords of seaweed were brought up on the beach. The seasons were much milder than on the mainland.

Longfellow established a flock of 275 mixed-bred sheep showing traces of Merino and Southdown blood, with some long-wools. These were divided into bands of twenty-five to thirty each, with a ram, and were kept in enclosures which led to the shore where they could reach the seaweed for supplemental nourishment and go into the woods for shelter. The principal feed was a variety of seaweed known as "dulse," but in the spring at low tide the sheep fed on lichens and the daintiest sea growth. During the winter they browsed on the lower branches of the trees. Flesh from the island sheep resembled venison rather than mutton in flavor.

Another well-known establishment was Dyer's Island, in the town of Harrington, Washington County. This was purchased in 1882 by John P. Wentworth of East Knox, who found a flock of two hundred sheep on the island at the time of purchase. These were bred up and the wethers fattened rapidly enough for slaughter in January. Other island flocks did equally well, and there was enough activity in island mutton between 1890 and 1910 to attract the attention of numerous writers and scientists.

#### THE RISE OF THE MUTTON BREEDS

The livestock literature of the last two centuries makes it seem doubtful whether the earliest sheep importers to this country were interested in their value for mutton. Obviously the Wiltshire type of sheep characteristic of the Atlantic seaboard served the settlers in wool production. The same measure seems

to have been applied to the Texel and other Dutch varieties in New Amsterdam, Pennsylvania, and Delaware. In fact their ripe mutton was criticised as "too luscious."<sup>97</sup> On the other hand, the proponents of the Lincoln and the Leicester boasted of their wool yields—often twice as heavy as a Merino—rather than of their carcass properties.

George Washington appreciated the efforts of Bakewell in England to improve mutton form and he attempted to import some additional Leicesters. However, it was at least the middle of the nineteenth century before the Merino fanciers were willing to admit the need of improvement in mutton quality. Then the general farmer forced on them a recognition of the need for a better meat type. Carman summarized the question in the East as follows:

There came about at nearly this date (the late forties) a change in sheep husbandry. Wool-growing was made secondary to mutton raising, and the sheep on the hills and in the valley were used to feed the operatives in the neighboring mill, and not the spindles that they tended. The wool sheep gave way to the mutton sheep, many of the English breeds being introduced and crossed on the common sheep of the country and on the Spanish and Saxon grades, and so, by 1850, the raising of fine wool was generally abandoned; the finer grades of sheep had gone out of nearly every county, and the Cotswold, Southdown, and Leicester had taken their place.<sup>98</sup>

Of these three breeds, the Leicester reached this country first, a few Bakewell or Dishley sheep having been smuggled into Virginia and New Jersey before the Revolution. Southdowns possibly were introduced about the same time, but the first authentic importation was in 1803 by a Dr. Rose of Fayette, Seneca County, New York. Lincolns were known in Massachusetts in 1796 and pure bloods are of record in New York

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<sup>97</sup> Van der Donck, "Description of New Netherlands," Vol. 1, 166.

<sup>98</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 277-78.

in 1825. In 1832 the Cotswold and in 1838 the Cheviot were imported to the latter state. Oxfords were brought to Delaware in 1840, while in 1855 both Shropshires and Hampshires were introduced to New York. The black-faced Highland came to New York in 1861, while the Dorset Horn reached the same state in 1885.<sup>99</sup>

The chief factor in promoting mutton sheep in Ohio, Indiana, and Michigan was the industrial development of the East and of the area between Detroit and Buffalo along Lake Erie. Introduction of foreign labor to these regions brought a working class that was accustomed to eating mutton and lamb, and markets where the farmers could sell their fat sheep were soon established. The railroads provided such convenient means of shipment that the producers of the eastern Corn Belt began to use them regularly throughout the fifties, and sheep were transported to Pittsburgh, Philadelphia, Buffalo, Albany, New York, and Boston. Population increased, farm lands rose in price, and the pressure of costs of operation was placed on the farmer to make his flocks more productive. The finishing and marketing of mutton and lamb, in addition to growing the wool, provided the natural answer.

However, the western markets were used in the early forties when a sheep was worth less for shorn wool than it was for pelt and carcass. In 1841 some firms at Cleveland began to manufacture oil, tallow, and stearine candles from cattle and hog carcasses, and the unfavorable wool price of the next two years added sheep carcasses to the business. Cleveland manufacturers slaughtered thirty thousand sheep in 1845, while those of Sandusky slaughtered fifty-one hundred—the latter averaging nine pounds of tallow each.<sup>100</sup> Temporary advances in wool prices checked this

slaughter, but the live sheep market thus established continued as mutton consumption increased.

Mutton sheep were common in Ohio at this time, as both Cotswold and Southdown flocks had been established by 1834.<sup>101</sup> Most of the state fairs of the Middle West were established in the fifties, and mutton breeds were included in their first shows. The first Michigan State Fair was in 1850, at which William Whitfield of Waterford showed Southdowns and Jonathan Shearer of Plymouth showed Leicesters. At Indiana in 1852 classes were offered for fine-wools, middle-wools, and long-wools, and at the Pennsylvania State Fair the same year Southdowns were shown.

The Illinois State Fair of 1853 had a classification parallel to Indiana's, while the Missouri State Fair the same season had Southdowns, Cotswolds, Oxfords, and French Merinos. Leicesters were exhibited at the first Territorial Fair of Minnesota in 1855, middle- and long-wool sheep at the first Iowa State Fair in 1856, and a "fat sheep" and a "coarse-wool" fleece were exhibited by Peleg Redfield at the first Nebraska Territorial Fair in 1859.

It was not until the seventies that the mutton breeds began to receive separate classifications. For example, from 1850 to 1878, at the Michigan State Fair, all middle-wools were exhibited together, but in the latter year Southdowns were given a separate classification from the rest of the middle-wools. In 1887, Shropshires, Hampshires, and Oxfords were segregated. This last move was stimulated by the large exhibits of each of the three breeds in 1886.

<sup>99</sup> Plumb, *Types and Breeds of Farm Animals*, revised edition, 537-654.

<sup>100</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 551.

<sup>101</sup> *Ibid.*, 551.

The wool demand of the Civil War period slowed up mutton development, but the postwar wool depression revived the interest of the farm states in the mutton breeds very rapidly. "The substitution of coarse-wooled mutton sheep for the fine-wool Merino"<sup>102</sup> began in Ohio about 1862 and 1863, because the state was so near the beef and hog supply centers of the army that some civilian families began to eat the low-priced mutton as a replacement for high-priced beef and pork. When Merino sheep dropped to prices of sixty cents to a dollar in 1867-68 there developed another period of selling pelts and rendering mutton carcasses for tallow, or feeding them to hogs. However, growers imported Southdown, Leicester, and Cotswold rams from Canada to the vicinity of Cleveland, Toledo, Columbus, Dayton, and Cincinnati, and farmers became engaged in the growing of combing wool, especially in crosses from the last two breeds. Also, the lambs would come earlier from the crossbreds (even by February), and the percentage of twins was higher. Hence the move toward mutton took hold.

After the Civil War a center of Shropshire breeding developed in the vicinity of Lafayette, Indiana, under the guiding hand of Mortimer Levering. Southdowns came into Illinois in the late fifties. J. N. Brown of New Berlin brought in a draft from the flock of Jonas Webb in England, while John Wentworth of Chicago, in 1861, brought to his Summit farm two extra quality rams from the flock of the Prince of Wales, as mentioned earlier in this chapter. Around 1883 Shropshires began to displace the Southdowns in the favor of Illinois farmers because of their heavier fleeces and rather greater size.

Another center of mutton breeding began to develop in the Cedar River Valley in Iowa in the early eighties,

much of it in the Quaker settlement near West Branch.<sup>103</sup> Two Shropshire flocks in this general vicinity which received national recognition belonged to the Fritzmans and J. S. Fawcett and Son near Springdale. Mutton breeds were shown at the first state fair at Boonville, Missouri, in October, 1853.<sup>104</sup> The earlier fairs showed a predominance of the long wool breeds, including also West Frieslanders and Southdowns, but at the St. Louis fairs in the early seventies, Shropshires and Oxfords were added to the classification.

By the nineties, Hampshires, Dorset Horns, and Cheviots also were listed. In October, 1855, at Minneapolis, J. G. Lennon of Hennepin exhibited a prize flock of Leicesters, and in 1863 there were strong exhibits of Southdowns and French Merinos.<sup>105</sup> The demand of the Chicago market for grain-fattened wethers, some of which ultimately went for export to England, added a distinct impetus to the mutton sheep all through the states of Indiana, Illinois, Iowa, Minnesota, and Wisconsin.

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Between the close of the Civil War and the end of the century, farm flocks pushed to the westward limit of profitable operations—some 100 to 150, or more, miles west of the longitude of the Missouri River. Also during this period the general character of flocks in the farming states changed from wool producers to mutton producers. In several of the heavier crop-producing states a strong feeding industry appeared. Kansas, Nebraska, and Minnesota pioneered in a field that is now widely emulated in Missouri, Iowa, Wisconsin, and Michigan.

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<sup>102</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 555.

<sup>103</sup> Fawcett, Letter, June 16, 1942.

<sup>104</sup> Trowbridge, Letter, May 16, 1942.

<sup>105</sup> Lee, Letter, May 1, 1942.

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*Valley, range, and high trail; mesa, butte, and river;  
Sun across the lowlands, rolling down to rest;  
There'll always be the skyline, running on forever,  
Running on forever down the long trail West.*

—Henry Herbert Knibbs, "The Long Road West"

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## The Close of the Westward Movement

THE treaty of peace with Mexico removed the international barrier to the westward movement, and the discovery of gold at Sutter's Mill created the incentive for the long overland trek. In the quarter century following the war, hundreds of thousands of sheep trudged across the high plains, the "Great American Desert," and the treacherous Sierras, to establish themselves in the valleys of California. Additional thousands came southward from Oregon to feed the hungry prospectors or to lay the foundation for the fecund flocks of the Sacramento Valley. Paths to water holes trod by generations of buffalo became the trails along which the herder penetrated the vast new grazing frontiers.

Two cradles of Spanish sheep breeding were available as the gold rush broke, but statistically, neither seemed adequate for the task. The Census of 1850 apparently provided very incomplete information on the ovine resources in the newly annexed territory. During the next decade, for example, the 377,271 sheep listed for New Mexico supplied more than 550,000 head for the California drives, more than 100,000 head for the modern Colorado-Kansas-Nebraska-Wyoming region, and more than a third-million head for increased population at home. In California, the 17,574 head of the 1850 Census proved even more astonishing. They not only assisted in feeding and clothing hundreds of thousands of gold seekers, travelers,

adventurers, and settlers—no mean job in itself—but by 1860 they had helped increase the sheep population of that state to more than a million head. Something was wrong in the 1850 statistics.

The routes followed in reaching the new Eldorado were classic historically. In the south the greatest number traveled the old trail along the Gila, or the route along the 35th Parallel which later bore Aubrey's name. The middle routes led along the Mormon or California trails. West of Green River this became the Overland Trail, which traversed southern Idaho, northwest Utah, the Humboldt River, the Carson Sinks, and the Sierras. Connection from the south was maintained by using the eastern end of the Old Spanish Trail that linked Santa Fe with Utah and crossed the Mojave Desert and Sierras to Monterey. Finally the movement toward the northwest utilized the historic Oregon Trail.

Trials of the Gold Rush have been widely publicized, but trials of the sheep movement are little known, despite a few faithful chroniclers. Western adventure was just as keen with a flock of sheep as with a wagon train, and the winning of the West by wooly flocks proved as hazardous an undertaking. The protection of a band of sheep from Indians was more difficult than the protection of women and children, for sheep had a blinder faith in their leaders.

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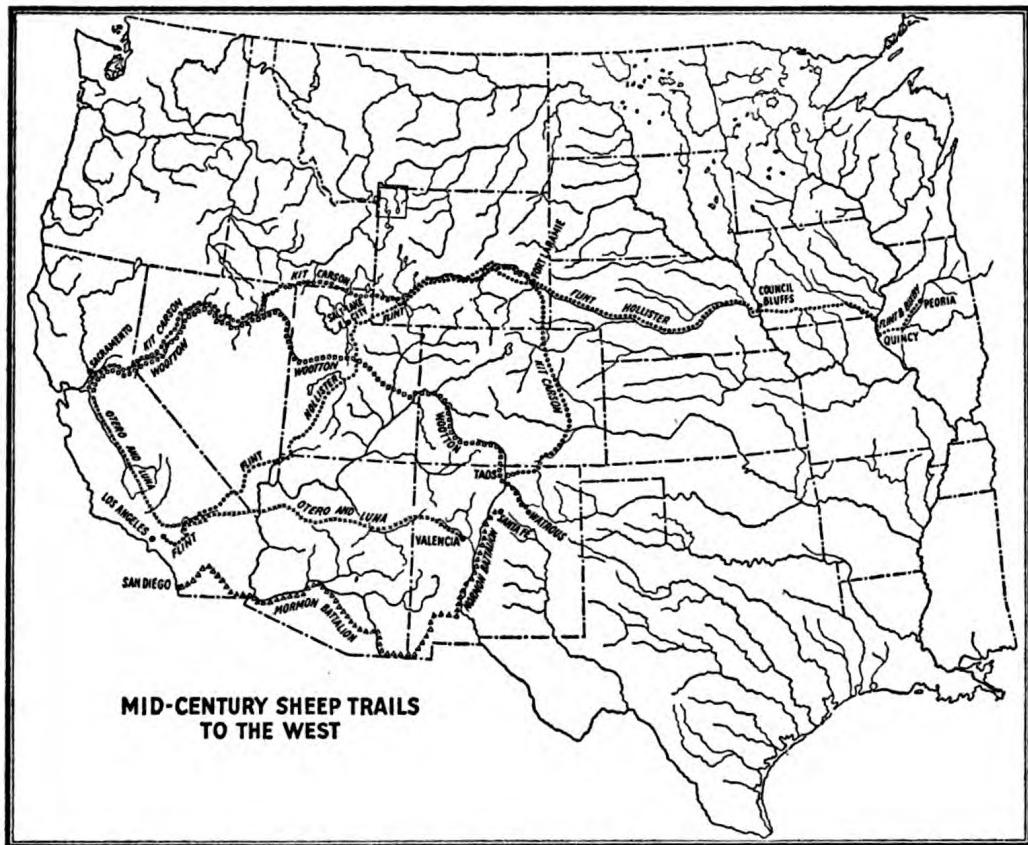


FIG. 38—Mid-Century Sheep Trails to the West. (Map from *Shepherd's Empire* by Towne and Wentworth, University of Oklahoma Press.)

Life in America was never illuminated more romantically than in the fifties of the last century, when the California placers reflected their golden brilliance from coast to coast. The lure of the precious metal drew hundreds of thousands of miners and adventurers into a territory which previously provided sustenance for only a few wandering tribes of Indians and retainers at the missions and *ranchos*. The demand for food and for the personal services characteristic of civilization became enormous. Vessels that might have placed needed supplies within striking distance of the gold fields were anchored in San Francisco harbor and abandoned by their crews.

Most of the available game was exterminated, and piratic thugs preyed on

the pioneer flocks and herds of men like Captain Sutter, Robert Livermore, Don Ygnacio Martinez, and Dr. John Marsh. The spring of 1850 found meat supplies at a perilous minimum, so once more was repeated, from wider sources, an experience characteristic of the advancing Spanish frontier during the preceding three centuries. Behind the gold-crazed miner appeared pastoralists, farmers, merchants, and traders, striving to meet the demand for community supply, organization, and service.

The first relief for the meat shortage came from New Mexico. Numerous flock owners in the spring of 1850 prepared to follow the example of Otero and Luna<sup>1</sup> during the previous year,

<sup>1</sup> See Chapter 8, p. 135.

and thousands of sheep and cattle were soon en route. No compilations exist as to the numbers of these animals, as well as mules, that went overland that year, but incidental letters and travelers' references indicate that a dozen or more expeditions may have terminated successfully. Jones<sup>2</sup> accompanied a band of eight thousand "Spanish" sheep, bound from Santa Fe to California, which reached Provo, Utah, in September. This flock, under the direction of a Captain Angley, succeeded in crossing the Sierras before the snows set in, and returned an excellent margin over their New Mexican cost.

Three classes of people were interested in serving the gold camps: settlers exploring the agricultural possibilities of California; stockmen and trail drivers from the older regions who found the most lucrative market there that had been known up to that date; and gold-seekers who early realized that the income from the Sierra gravels was far smaller per individual than that derived from serving the prospectors and miners themselves. Among the latter, P. D. Armour built their sluices; James B. Haggan financed successful prospectors; Crocker, Mark Hopkins, Thomas Larkin, and General Bidwell handled their trade; and Leland Stanford based a fortune on their legal disputes. Collis P. Huntington pioneered their transportation, and W. C. Ralston their real estate. Some characters of the American frontier—Kit Carson, Lucien Maxwell, and "Uncle Dick" Wootton—speculated in livestock prices by trailing great bands of New Mexican sheep across the hazardous Indian country.

Despite their picturesqueness, the long-term results for the industry did not come from the speculators. Over in New Mexico, the efforts of such families as the Armijos, Bacas, Jaramillos, Lunas, Ortiz's, Oteros, and Pinos provided a

stream of ewes to supplement California's breeding flocks, while the careful planning of easterners like Colonel Hollister, Dr. Flint, Llewellyn Bixby, J. Parker Whitney, Solomon Jewett, and J. D. Patterson made the improved bloods available. By 1851 the first sheep were en route from the Missouri River. J. W. Cooper<sup>3</sup> reached the gold fields with a moderate-sized flock, despite Indian alarms, narrow escapes on the plains, terrible sufferings, and a division of his party.

#### WOOTTON'S DRIVE

In the spring of 1852 the classic drive began of "Uncle Dick" Wootton, famed keeper of the toll road over Raton Pass on the Colorado—New Mexico line. About nine thousand head of sheep were purchased near Watrous, New Mexico, and delivered into his keeping at Taos. Twenty-two men were hired for the expedition. Fourteen were New Mexican sheepherders and eight were American guards, either discharged soldiers or former teamsters. None of the latter were experienced "mountain men," however, and "Uncle Dick" had to rely on his own resourcefulness. Approximately a thousand dollars' worth of flour, sugar, coffee, dried meat, and ammunition constituted his supplies,<sup>4</sup> carefully lashed athwart the backs of pack mules. As aides to the Mexican herders he had eight goats—two of which were assigned to the lead each day—and one dog which bore the responsibility of encouraging the stragglers all the way to the Sacramento Valley.

Leaving Taos on June 24, they struck the Rio Grande and followed it north-

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<sup>2</sup> Donald W. Jones, *Forty Years Among the Indians*, pp. 21 *et seq.*

<sup>3</sup> Frank Sands, *A Pastoral Prince—The History and Reminiscences of J. W. Cooper*.

<sup>4</sup> H. L. Conard, *Uncle Dick Wootton*, 249–62.

ward and westward toward its source. Just short of the latter they crossed over the Continental Divide to strike the Uncompahgre below modern Ouray. En route to this stream, a band of Utes accosted them on the "Eagletail River" (upper waters of Cochetopa Creek west of Cochetopa Pass) and attempted, by scattering volleys, to stampede the sheep. Since such tactics drove the flock closer to the herders for protection, the chief, Uncotash, entered "Uncle Dick's" camp and demanded, rather insolently, a portion of the flock as tribute for crossing Ute territory. Realizing that he could not rely on his own guards, Wootton grappled with Uncotash. After a brief single-handed struggle, "Uncle Dick" pinned him to the ground, holding the chief at his mercy, with a keen hunting knife at the Ute's throat. Grudgingly Uncotash compromised for flour and ammunition, while his band looked on, helpless to relieve him.

When the Utes moved on, the little party worked the flock toward the Gunnison and down to the Grand. Before reaching the junction with the Green, Wootton struck across country along the route blazed by Captain Angley,<sup>5</sup> north over the "Wasatch" to the Spanish Fork, American Fork, Bingham Canyon, Tooele, and across the desert to the Nevada Mountains northwest of modern Ibapah. On a side trip to Salt Lake City he replenished his supplies, met Ben Holladay, the stagecoach king, and dined with Brigham Young in the "Lion House."

Resuming the trail, he eventually worked northward to the Humboldt and Carson rivers, anticipated the early snows across the Sierras, and followed the American River to Elk Grove, twelve miles north of Sacramento. Here the flock was wintered, and the following spring he sold more than eighty-nine hundred head, a record of cross-

country survival without parallel. His gross return exceeded fifty thousand dollars.<sup>6</sup>

#### THE CARSON-MAXWELL DRIVE

Throughout 1852 more than a hundred thousand head trailed to the "diggin's," and by 1853 that famous character so misrepresented in the "dime novels," Kit Carson, was on his way. In the Rio Grande Valley below Santa Fe, Kit and Lucien Maxwell,<sup>7</sup> of Maxwell Grant fame in New Mexico, purchased slightly more than thirteen thousand head of sheep. These were equally divided, Carson taking the first band and Maxwell the second. Apparently Carson's life-long friend, Thomas Boggs of Taos, assisted in the financing, while the physical cooperation of two other denizens of Taos, Henri Mercuré and John Bernavette, with the latter's herders, helped them across the plains of Colorado. Following Big Sandy, Beaver, and Deep Trail creeks, they continued up to Fort Laramie where they struck the Overland Trail. By paying an anticipated passage toll to the Indian tribes through the country they crossed, they completed the trip without untoward incidents.

Carson's previous visits and his widely advertised career set all California agog. Newspapers kept announcing his progress and probable date of arrival. On September 6 he seems to have reached Sacramento, closely followed by Maxwell.

<sup>5</sup> Jones, *Forty Years Among the Indians*, 21-33.

<sup>6</sup> Otero, *My Life on the Frontier*, Vol. 1:145.

<sup>7</sup> Lucien Maxwell was an American trader and trapper who married the daughter of Don Carlos Beaubien, co-recipient with Don Guadalupe Miranda of a grant of 1,700,000 acres centering around Cimarron, New Mexico. For forty miles the old Santa Fe Trail wound through the grant, never being out of sight of the great flocks of sheep and the tremendous herds of cattle and horses. At the manor house at modern Cimarron, lavish hospitality was dispensed, and all of the important characters of the old frontier were entertained there.

Both bands were purchased by Samuel Norris, a prominent merchant of early San Francisco, at a price of \$5.50 per head. This sale grossed well above thirty thousand dollars for each of the two partners. Sabin<sup>8</sup> thinks that the New Mexico price did not exceed \$2.50 per head, but even this price seems high in comparison with contemporary transactions. Returning via Los Angeles, the old Gila route, and the Santa Rita copper mines, Carson passed "a hundred thousand sheep on the road to California, the greater number of which were from New Mexico and were in flocks of ten to twenty-five thousand each."<sup>9</sup>

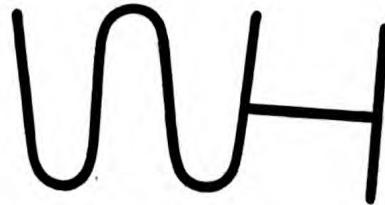
#### OTHER DRIVES

The year 1853 also saw the drives of the Flints and Bixby, of Thomas Hildreth, of Colonel W. W. Hollister, of James Moore, of the Wilson Brothers, and several others. The largest of these was the Hollister drive, about nine thousand head of Ohio Merinos and two hundred cattle. Fifty persons and eleven covered wagons were in the party.<sup>10</sup> It was nearly a year and a half before the flock was safely established on San Justo Ranch in Monterey County east of the Gavilan Mountains (now San Benito County). The San Justo Ranch was also the destination of the Flint and Bixby overland bands.<sup>11</sup> Dr. Flint and associates purchased a half interest in the property, while Colonel Hollister assumed the other half of the obligation.

Beginning with 1854 the number of sheep on the trail began to diminish, especially over the more southern routes. Minto<sup>12</sup> says that 551,000 head traveled from New Mexico to California between 1852 and 1860, but at least half of them were driven there in the first two years. Possibly the agricultural development of southern California in the latter fifties

supplied part of the demand,<sup>13</sup> but the hungry miners east of the Golden Gate still made an attractive market for those traveling by the northern route.

During the last four years of the decade a number of better quality flocks were trailed across the plains in bands of two thousand to fifteen thousand head. The most spectacular drive was handled



*William Weller Hollister*

FIG. 39—The sheep and cattle brand of Colonel William W. Hollister. (Courtesy Senator James J. Hollister.)

by "Hub" Hollister, Dibblee Brothers, and J. W. Cooper, all then of the vicinity of Santa Barbara. About twelve thousand head were assembled in Ohio and Missouri, of which half were high-bred Ohio Merinos and half strong grades of the English mutton breeds.<sup>14</sup> They were wintered on the bottoms of the Rio Grande, and "lambed out" more than eight thousand youngsters the following season.

Early in the spring of 1859 they started on the long trail to California, but they moved slowly and suffered severe losses. In January, 1860, they reached Los Angeles County with only forty-four

<sup>8</sup> E. L. Sabin, *Kit Carson Days, 1809-1868*, Vol. 2:364.

<sup>9</sup> Davis, *El Gringo*, 125.

<sup>10</sup> J. J. Hollister, Gaviota, California. Letter to author, October 10, 1940.

<sup>11</sup> Flint, *Diary*, 75, 77.

<sup>12</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 948.

<sup>13</sup> Joseph Weidel, Valuation Engineer, Santa Fe Railway. Letter to author, September 29, 1939.

<sup>14</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 952.

hundred head left. Surplus rams were sold, and the wool-type sheep of the band were amalgamated into the flock of Colonel W. W. Hollister. In 1862, Colonel Hollister sold his share in the San Justo Ranch to the Flint-Bixby trio, and with Hubbard Hollister, Albert Dibblee, and T. B. Dibblee, purchased the forty-two thousand-acre Lompoc Ranch in Santa Barbara County. This was stocked with ten thousand high quality Merino sheep, and from its profits the great ranch interests of the Hollisters and Dibblees developed.

#### TRAIL TRIBULATIONS

Trailing from New Mexico to California presented no new situations to the shepherds of the Southwest, who had been overcoming such problems ever since Oñate established sheep permanently on the upper Rio Grande. Driving flocks from the Middle West, however, uncovered new and exacting tasks. The sheep of the Southwest were customarily handled in bands of one to three thousand head. They moved out readily on the trail, bedding down at night according to regular custom. The bands on the more northern trails were gathered from Midwest farms having ten to two hundred head, were strange to each other, of mixed breeds and instincts, and knew nothing of cross-country driving. The flocking habit was overpowering in southwestern sheep, but had not been developed functionally in the fence-restrained animals of the Ohio-Illinois-Missouri country. Much of the distance from the Mississippi River to the mountains had to be covered before such bands were "trail-broken."

The most intimate picture of daily problems is presented in the diary of Dr. Thomas Flint during the drive from Illinois to California in 1853.<sup>15</sup> The first task Flint faced was holding the flock on the prairie near Bloomfield, Illinois,

from the back of a horse and without the aid of a dog. The acquiring of a trained sheep dog was not easy in the primitive farming communities, and the farther west that one started on the trail the more difficult the purchase became. Two days before the end of shearing it became possible for Flint to procure one, much to his relief.

River crossings were always a problem. Bridges were practically nonexistent, and there were only three substitutes—ferry, fords, and swimming. The Flint and Bixby flock was ferried across the Mississippi at Keokuk, Iowa, the tolls for the two thousand head amounting to \$62. As the flock progressed farther west it became more adept at fording or swimming, but the larger rivers always provided a ferry problem.

Exactly one month after crossing the Mississippi, the Missouri was crossed twelve miles above Kanesville (Council Bluffs), Iowa. Here the ferry was a flat-boat, propelled by oars, taking 150 sheep per load. Two days were required for the passage and the party had to be divided to hold and guard the sections of the flock on each bank. Tolls totaled \$57, while three days later the Elkhorn River ferry keeper demanded \$41.80.

From that point westward, however, the ferrying problem became more difficult and the prices mounted. At the Loup River in Nebraska they were \$100. Thereafter the doctor forded or swam his flock without incident until he reached the Green River in western Wyoming. Here the ferry owner held quite exalted views as to the value of his services, since he "knew sheep were not swimmers." Dr. Flint thereupon conducted a hasty reconnaissance, and downstream a short distance discovered a ford that was passable if he raised his wagon beds slightly. Taking advantage

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<sup>15</sup> Flint, *Diary*, 19.

of the current, he succeeded in getting the sheep to follow the wagons, and landed them safely on the other bank after a two hundred-foot swim.

Forcing these eastern flocks to swim was an art in itself. While traveling down the Virjen River in southern Utah, it proved necessary to cross and recross the stream several times. Flint wrote:

As there were thirteen crossings to make ahead, I took charge of the sheep; the men with the sheep (being) weary and out-of-sorts, having had but little sleep. . . . The first crossing we came to, the sheep stopped, but I thought if we pressed them quietly, the leading ones would swim across; therefore directed the shepherds not to make any noise and to keep the dogs quiet also. In a little while the leader waded in, when the men began to shout and the dogs to bark, whereupon every sheep turned back to see what was up. It was my turn to get mad, apparently, so (I) gave the men a good swearing for not obeying orders. They were grouchy, so when the next attempt was made they sullenly stood by at the places I put them, whilst I quietly worked the sheep, the outer ones crowding the ones at the edge of the water, and in a short time being in the water, they broke for the opposite side, and there was no further delay.<sup>16</sup>

Another problem that the drover faced early on the trail was the trading of footsore stock. Sometimes they could be exchanged for animals that had recuperated, sometimes it was possible to sell them. Just west of Scott's Bluff, in Nebraska, the Flints and Bixby passed a trading post run by a half-breed Sioux,<sup>17</sup> "where money is made by picking up lame stock or buying it cheaply, and keeping it until it is in good condition and then selling or trading again. Their price (is) four dollars to ten dollars for cattle and one dollar for a sheep if it is fat." Near American Fork, in Utah, they were approached by "the Mormons, numbers of whom are in camp, offering to barter for worn-out sheep, groceries, or anything."<sup>18</sup>

While sheep did not stampede in the manner that cattle and horses did, most of the sheep drivers had horses, cattle,

and draft oxen with them. These provided real problems at night. With hunger, storms, and Indians, straying and stampedes were easily started. The day after the flock arrived at Kanesville, Dr. Flint reported that the horses stampeded in a shower, and that it was after dark before they could be returned to camp. Two weeks later the horses became frightened at night. They ran into the sheep, breaking the leg of one so that it had to be converted into mutton. Toward the end of June the stock became more accustomed to camp life, making it their common center, "seemingly for sociability and protection." Yet they still had times when they would wander. On August 22, in western Wyoming near Black's Fork, Dr. Flint complained that the sheep were "in a contrary mood and hard to guard." The week before Christmas he found that his sheep were straying badly one night, and the second day thereafter discovered that 87 of Colonel Hollister's sheep had joined his flock, while 175 of the Flint and Bixby flock had joined Colonel Hollister's.

Dry drives stimulated straying. In the long stretches between one isolated water hole and another, in western Wyoming, southwestern Utah, Nevada, and the Mojave Desert, the flock was very disquieted and nervous. When they left the Virjen River for Las Vegas, Nevada, they had a waterless drive of fifty-three miles. The trip from Bitter Springs, in the center of the Mojave Desert, to the Mojave River was more than forty-seven miles. These were the two worst points, but at many other places the water was so alkaline as scarcely to be potable for the animals. When they had proceeded three miles beyond the crest of Cajon

<sup>16</sup> Flint, *Diary*, 33.

<sup>17</sup> *Ibid.*

<sup>18</sup> *Ibid.*, 51.

Pass to a mountain spring with sweet water (above modern San Bernardino), their relief was inexpressible.

Poisons were unforeseen by inexperienced drivers from the East. Beyond Fort Laramie the question was suddenly thrust upon the attention of anyone on the trail. On July 1, Dr. Flint wrote that "a great deal of Alkali water in pools (is) injurious to sheep, (having) lost three head on account of (their) drinking it." On July 19, three days after passing Fort Laramie, he had ten sheep fall sick through eating some poisonous vegetable, but he managed to save five by pouring melted lard down their throats. Near Independence Rock, along the Sweetwater in Wyoming, they fell among numerous alkali lakes, and the second day thereafter they lost seven sheep from poison. At the Green River they encountered some Mormons who had just lost three sheep and three cattle from poisonous herbage, so they moved their own camp nine miles down the river to avoid the locality.

In the vicinity of Fort Bridger they learned that Thomas Hildreth had lost thirteen sheep from poisonous plants, so the Flints and Bixby moved up a small canyon, away from the bottom, for safety. Approaching the Sevier River in Utah, several sheep showed symptoms of poisoning but Dr. Flint saved all but one by again pouring warm lard down their throats. Near Fillmore, Utah, however, he found another kind of poisoning that did not respond to his treatment. Fifteen head died, and many more were spread out over the ground in spasms. Colonel Hollister lost eighty-six head here.

Indian hazards were great, of course, and losses were large both from stealing and from attacks on the daily camps. Most of the attacks were made on emigrants' trains rather than on the camps of the sheep drovers, but constant watch

had to be kept to protect the latters' bands from theft. Though trying to give the Indians a "square deal" at the start, both Dr. Flint and Colonel Hollister gradually came to the conclusion that the best defense was a good offense. They began firing in the direction of Indians whenever they were visible, "not intending to hit." With the adoption of this policy their Indian troubles disappeared. However, they were then beyond the territories of the more warlike tribes, and were able to play a "game of bluff"—difficult to follow with the Plains Indians.

These by no means catalog the risks run and problems faced in trailing a flock overland. Though far less common in occurrence, two of the most spectacular not previously mentioned were prairie fires and scattering of the flock by herds of bison. In Nebraska and Utah, there were occasional attacks by frontier bandits or still more rarely, near the end of the drive, by unregenerated *Californios*. The extremes of heat and cold prevented the trip from ever becoming monotonous, while wolves, coyotes, and eagles constantly preyed on the fringes of the flock.

Ormsby<sup>19</sup> quoted "Jim" Howell concerning an unnamed Missouri emigrant, en route in 1858 to the Gold Fields, who was driving a ram and fifteen ewes with the wagon train along the Humboldt River in Nevada. He was awakened one morning to find his ram dead after a battle with a tremendous male Bighorn. The victor was leading the little band of ewes into the fastnesses of the Ruby Mountains, so the indignant owner gave chase on horseback. Only the inability of the trail-weary ewes to keep pace with their wild abductor permitted the Missourian to recover them. One cannot forget that the completion of the over-

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<sup>19</sup> L. L. Ormsby, Boise, Idaho. Interview with author, May 29, 1940.

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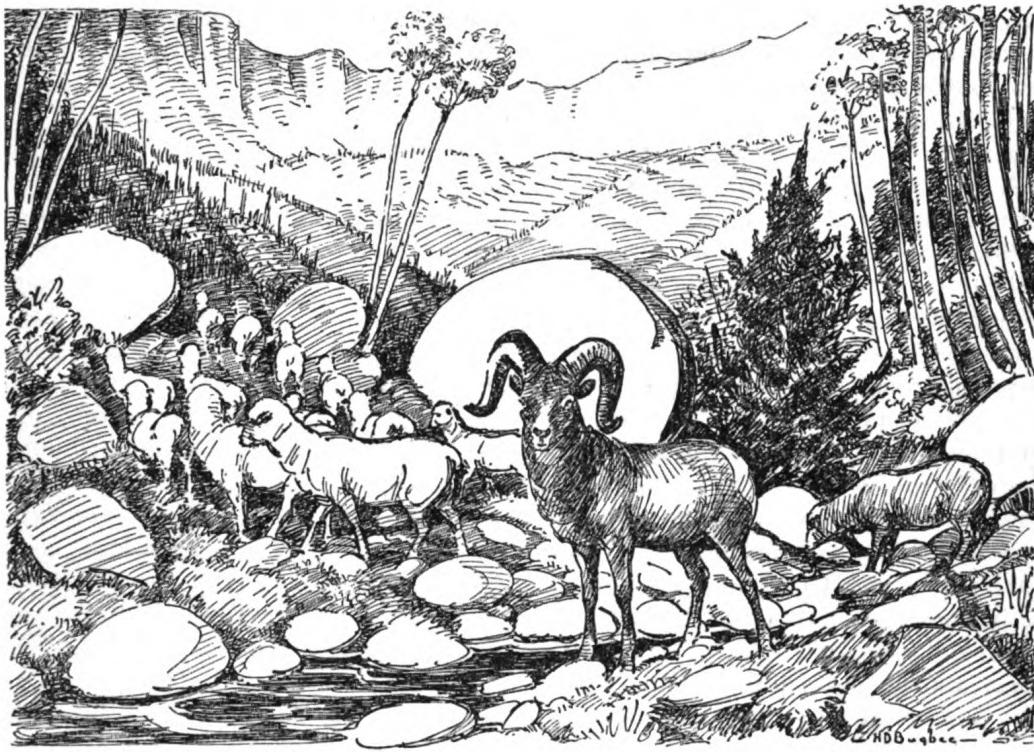


FIG. 40—Bighorn ram kidnaps domestic ewes (Ruby Mountains, Nevada).

land drive constituted a severe form of environmental selection, and the breeding animals that arrived had been tested in a most unusual way for virility and hardihood. Their contribution to California flocks was the greater for this proving.

#### CALIFORNIA IN THE FIFTIES AND SIXTIES

Following the Mexican War, the Spanish *ranchos* and flocks provided the foundation for modern production in California. Development was particularly rapid in Southern California and the region east of Monterey. Many of these southern *ranchos* already have been mentioned.<sup>20</sup> Numbers of new owners entered the business. Two New Yorkers near Los Angeles attracted attention for a time—Edward N. McDonald and George Carson. McDonald, who arrived in 1853, accumulated a great

deal of property and achieved ovine distinction by exporting sheep to Japan. Carson came a year earlier, but suffered from speculative mishaps. During years of heavy rainfall his plunges into new flocks brought him great wealth, but his resources dissipated when the seasons were dry. Once in the early sixties he was forced to seek feed in the mountains when they were completely sere, and he lost 90 per cent of his sheep. To save his last band he had to cross a barren region where ten thousand out of eleven thousand head perished.

An interesting incident in the sheep records of Southern California was the establishment of the Mormon Colony near San Bernardino. In 1851 Brigham Young sent 150 families into this region under the leadership of Elders Amasa M.

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<sup>20</sup> See Chapter 8, pp. 130-35.

Lyman and C. C. Rich.<sup>21</sup> On September 2, a ranch of thirty-five thousand acres was purchased from the Lugo brothers and Diego Sepúlveda, conveniently located with reference to the route to Salt Lake City and the coast ports. The property lay south of Cajon Pass, and a town site a mile square, patterned on Salt Lake City, was laid out upon it. The location was only one hundred miles from San Diego and seventy miles from San Pedro, the port of Los Angeles. The new settlement was planned as a supply and outfitting point for the Mormon converts traveling via the Pacific ports to Utah. The trail from San Bernardino to Salt Lake was only 650 miles long, but the Mojave and Utah deserts presented a difficult water and feed problem. By 1856 the assessor's list showed 3,907 sheep and 500 goats in the colony. When war threatened with the Federal Government in 1857, however, Brigham Young ordered its abandonment, and the colonists, with their livestock, were led back to Utah by David Seeley.<sup>22</sup>

Before the desertion of the San Bernardino settlement, interest in sheep raising was quickening among other settlers in the region. Los Angeles newspapers began publishing quotations on slaughter sheep in 1856, an early report stating that "sheep are killing in Los Angeles at two dollars and a half to three dollars a head." Nevertheless, general stocking with sheep did not take place until the season of 1859. In the spring of that year immense bands arrived from New Mexico which were sold at four dollars per head. By fall, though, Los Angeles was issuing its first public apologies for "unusual" weather, as destructive floods in December caused great sheep losses. One flock alone was reported to have lost a thousand out of four thousand head. Drowning was only a minor cause of loss, as most of the sheep seemed to "chill to death." Due to their

poverty of flesh and light-yolked fleeces, they could not withstand the cold rains and winds.

The following winter marked the beginning of the notorious four-year drouth. The first season was bad but the subsequent ones were worse. During what should have been the rainy season of 1862-63, less than four inches of rain fell. Dr. J. S. Griffin, promoter of East Los Angeles, tried to obtain eight hundred additional acres of city land along the river for supplemental pasture for his flocks and herds. But since this would have denied access to the water for animals other than his own, the City Council forced him to purchase land 'way back on the mesa—some four thousand acres at fifty cents per acre—on which to graze his flocks.

Throughout this drouth large numbers of cattle, horses, and sheep died, the plains being strewn with carcasses and bleached bones. At Anaheim a great willow fence was built to protect the green irrigated fields, but the thirsty and starving animals beat against it in such numbers and with such force that the citizens were compelled to establish guards over their water supply and gardens. Abel Stearns lost forty thousand to fifty thousand head of livestock, and to meet his obligations was forced to mortgage his beautiful Los Alamitos *rancho*<sup>23</sup> of twenty-six thousand acres for twenty thousand dollars. The great properties of Ricardo Vejár between Los Angeles and San Bernardino were lost by mortgage and purchased on credit by Louis Phillips for thirty thousand dol-

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<sup>21</sup> Grandfather of Roscoe C. Rich, President, National Wool Growers' Association, 1935-40.

<sup>22</sup> Uncle of John Seeley, famous Rambouillet breeder of Mt. Pleasant, Utah, who for many years was president of the American Rambouillet Sheep Breeders' Association.

<sup>23</sup> Now the property of Fred H. Bixby, Long Beach, California, former president of the California Cattlemen's Association and the American National Livestock Association.

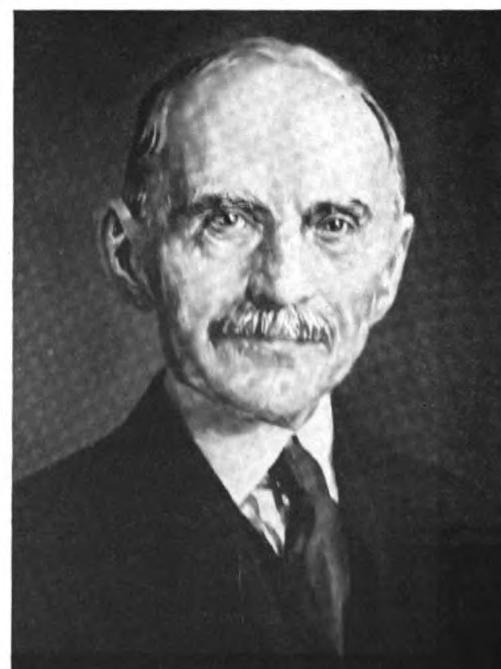
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FIG. 41—Trail sheep in Powder River Badlands, 1884 (p. 284). (Hoffman Studios.)



FIG. 42—"Hot" sheep, Powder River Breaks near Broadus, Montana—1884. (Hoffman Studios.)



PANEL 43—Four Northwest Sheep Pioneers:  
*(Above)* Charles H. Williams, Rambouillet producer and long-term president of the Montana Wool Growers (pp. 564, 589). (From portrait by Othmar Hoffler.)

*(Above Left)* Andrew J. Little, Idaho's largest modern sheep producer (pp. 294, 617). (From portrait by Othmar Hoffler.)

*(Below Left)* A. W. Kingsbury, early Montana sheep producer (p. 296).

*(Below)* Henry Sieben, dean of Montana wool growers (p. 297). (From portrait by Robert W. Grafton.)

lars. Large droves of sheep, cattle, and horses were included in the inventory. During the first rainy period, Phillips drove the sheep to Utah, realizing enough money to pay for the entire property. Pomona is now located on the old ranch. The Phillips headquarters were in Spadra.<sup>24</sup>

It was March, 1864, before a shower came and then the earth was scarcely moistened. The total assessments in the county approximated two million dollars, but not a cent of taxes could be collected. Even the biggest land and livestock owners were denied credit by the merchants—a fact long remembered and resented by those who became affluent after the drouth had passed. Sheep survived the privations better than cattle through subsisting on a weed called "gayeta." Ordinarily they would refuse to eat this, but in the emergency it proved their salvation. Los Angeles County still listed 282,000 sheep after the drouth, in comparison with a mere handful of cattle. But the sheep had their constitutions seriously undermined, and by 1867 fewer than half of the foregoing number were left.

Farther north conditions were as bad. East of Gilroy, in May of 1864, the hills were terribly dry and bare of forage. Brewer<sup>25</sup> camped in a canyon swept by a hot wind. In the dry air the thermometer stood at 92° F. He commented on the "terrible year for the thousands of sheep that are kept here," and reported that at nearby San Luis de Gonzaga ranch (more than seventy-six square miles) the normal flock of sixteen thousand head had dwindled to less than a thousand, without a single head of cattle remaining. At Lone Willow, a stage station on the Tulare plain, the entire flock was lost from the drouth.

During the period just preceding the Civil War, the sheep population of California proved even more diverse

than the immigrant flocks that had entered the state. Rams of almost every established breed were in service, supplemented by Hawaiian and Chinese bucks of different strains. So many crossbred rams were used that almost every trait known to the ovine species was represented in California flocks. Ewe bands varied somewhat geographically, the New Mexican and Mexican blood predominating as the heavy importations of 1859 tended to obscure the characteristics of the old California stock. Near Riverside and San Bernardino, traces could be observed of the eastern bloods brought in by the Mormons or left behind by the overland drivers. But the nearer one approached the old line of missions, the more typically *churro* was the stock. Up the coast as far as San Francisco Bay, the latter class of ewes persisted, but in the Sacramento and San Joaquin valleys the influence of eastern flocks—trailed to supply the gold seekers—was apparent. From Monterey northward much improved blood was distributed, and beyond Sacramento bands of big-boned Oregon ewes were serving as the bases for new producing flocks.

While the American settlers were taking over the regions near Los Angeles, Monterey, and San Francisco, the Spanish and Mexican owners were still running their sheep back in the mountains. Numerous observations were made by Brewer in the early sixties on these flocks and those of the encroaching Americans. Under the Spanish system the ranches did not cover all of the land, but their titles covered all of the water—which amounted to the same thing.<sup>26</sup> The early

<sup>24</sup> Located at the "Cecil George" headquarters near the foot of "Old Elephant" hill, Spadra, California, according to 1942 designation.

<sup>25</sup> Wm. H. Brewer, *Up and Down California—1860-1864: the Journal of William H. Brewer*, 506, 509.

<sup>26</sup> *Ibid.*, 99.

control of the range throughout the West was based on this Spanish custom, reputedly introduced from Estremadura. Ranch headquarters were established every fifteen to eighteen miles along the river. In the spring of 1861 Brewer<sup>27</sup> "passed through a flock of sheep, the largest I have ever seen, even in this country of big flocks. It was attended by (several) shepherds, and must have contained not less than six thousand sheep, judging from the flocks of two thousand and fifteen hundred we have seen often before. Some of our party thought there must have been eight thousand (head as) sheep are generally kept in flocks of not over eighteen hundred head."

The diversity in the newly arrived American sheep owners interested him. In June, 1861, at the head of Lone Tree Canyon near Pacheco's Pass (eighty miles south of modern Oakland) he found a most intelligent American who ran about three thousand sheep. His standard of living was much higher than previous sheepmen Brewer had observed, but he was leading a lonely life. Brewer was the first person he had seen in three weeks and he expected the time to be longer before he saw another. Brewer philosophized:

What a lonely life must be his! Summer and winter he must be here—his visitors few and far between. Sunday and weekday are alike to him. Up at dawn, he gets his breakfast and drives his sheep out into the early cool air of the morning twilight. He carries a little bag in which is his noon meal. He watches his sheep among the hills the entire day, and at night brings them into the fold or corral, beside which he sleeps, to keep away coyotes, wolves, and bears. Such is the monotonous life of hundreds of sheep herders in California.<sup>28</sup>

Four days later he found Cañada del Puerco, near Monte Oso (Bear Mountain) a contrasting sheep ranch, where two men handled four thousand head. One of them had been there five or six years, "his cabin dirty beyond

description, his scanty utensils dirtier, his bed a dirty sheepskin, and his blanket merely another dirty sheepskin." In 1860 this herder saw only three men in three months, and they were a group of hunters who came through the mountains by accident, so far off he could not talk to them.

Brewer did not have a high opinion of most of his fellow Americans entering the sheep business then. Near San Luis Obispo he particularly resented the "recent, worthless, wandering American squatters," who had intruded upon and desecrated some of the characteristic old California *ranchos* of the vicinity.<sup>29</sup> Fortunately, this condition represented only a short period of California's ovine history, but was irritating alike to *Californios* and responsible Americans.

Yet the fifties and sixties were decades of development. During the latter, wool production increased from three million to more than twenty million pounds,<sup>30</sup> and sheep numbers increased correspondingly. Part of the higher wool production was due to better blood, as the last half of the sixties saw a rise in average fleece weights due to the introduction of registered rams.

#### THE NORTH PACIFIC COAST

Credit for the first permanent flocks in the Oregon country belongs to the progressive pioneer factor of the Hudson's Bay Company, Dr. John McLoughlin. It is possible that the Winship expedition which loaded "goats and other livestock" in the Hawaiian Islands in 1810, for a proposed lower Columbia River trading post, may have brought sheep, but there is no record of their survival. It is also true that John Jacob

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<sup>27</sup> Brewer, *Up and Down California*, 99.

<sup>28</sup> *Ibid.*, 277.

<sup>29</sup> *Ibid.*, 74.

<sup>30</sup> *Pacific Rural Press*, San Francisco, California, 91, No. 24 (June 10, 1916).

Astor's first ship to the northwest coast, the *Tonquin*, may have brought a pair of sheep to Astoria from Honolulu in 1811.<sup>31</sup> But there was no record of sheep in the inventory of goods when the Northwest Fur Company took over the American properties at the outbreak of the War of 1812. Bancroft preserves an entertaining story of a sea captain (Dominis) who, after conference with Dr. John McLoughlin, saw a great opportunity in 1829 of profiting through the introduction of California breeding flocks into Oregon. His speculative sense so far exceeded his sheep sense, however, that he reached the Columbia River with a shipload of wethers.<sup>32</sup>

The charter of the Hudson's Bay Company did not provide for agricultural activities. But when Governor Simpson took Dr. McLoughlin to Fort Vancouver in 1824, both recognized that the new settlement had to be self-sustaining. Cultivation of the land was commenced at the same time that the building operations were started. The first sheep, cattle, and swine were brought from Great Britain by ship in the winter of 1824-25. But McLoughlin was so determined to build up herds and flocks that slaughter was not allowed for several years.

Statistics on his sheep are not as complete or available as on his cattle. Both John Ball and Nathaniel Wyeth<sup>33</sup> observed that the Hudson's Bay Company had sheep at Fort Vancouver in 1832, while in 1835 the Rev. Samuel Parker<sup>34</sup> stated there were two hundred sheep in addition to other livestock. In 1833 McLoughlin had laid the foundation for better quality wool production through the importation of Merinos from England. During these few years he had sent sheep to the French Farms on the Cowlitz River, and cattle to the farms at Nisqually, Okanogan, and Colville.

Dr. McLoughlin followed a farsighted system of loaning livestock to trustworthy settlers. In 1829 he began the policy of loaning two cows each, with teams of oxen, to the retiring servants of the company whom he advised to settle in the country. He did the same with American settlers and missionaries. Most of the records indicate the loaning of cattle and horses only under this policy, but by 1835 it is probable that some of the more trustworthy settlers had been given the nuclei of small flocks of sheep. Because of wolves, flocks not large enough to warrant a herder were usually unsuccessful. While opposing views existed as to McLoughlin's purpose—the natural one being the humanity he displayed toward needy settlers, and the suspicious one being the intention to monopolize the agricultural and livestock production of the Northwest—there is little doubt that his activities guaranteed the rapidity of American settlement.

Since the British, through the Hudson's Bay Company, held the economic control of the Oregon region, and since the boundary question was not settled until 1846, the only means of supporting the American claims was through immigration. In the middle thirties President Jackson commissioned Purser William A. Slacum of the United States Navy to visit the Columbia River region and report on the condition of American settlers there and the opportunities for them.<sup>35</sup> In 1836 he visited the Willa-

<sup>31</sup> Gabriel Franchère, *Narratives of a Voyage to the Northwest Coast of America, 1819*, (Vol. 6, *Early American Travels*, edited by R. G. Thwaites) 221.

<sup>32</sup> H. H. Bancroft, *History of the Northwest Coast*, Vol. 2:443.

<sup>33</sup> Alfred L. Lomax, *Pioneer Woolen Mills in Oregon*, 25, quotes Wyeth and Ball.

<sup>34</sup> Charles H. Carey, *A General History of Oregon*, Vol. 2:680-81, quotes Parker.

<sup>35</sup> William A. Slacum, "Affairs on the Columbia River and Northwest Coast," *Senate Document No. 24*, 25th Congress, 2nd Session.

mette Valley and raised nearly twenty-five hundred dollars to bring in cattle and horses (much of which was subscribed by Dr. McLoughlin himself) to break the so-called "British livestock monopoly." Ewing Young, the notorious southwest trapper, succeeded in trailing six hundred out of eight hundred wild California cattle into the valley. No sheep accompanied the expedition, although Young is recorded both as having advised their purchase and as having reproached his backers for failure to do so.

In the meantime the Hudson's Bay group continued to improve its holdings. The livestock interest became so large by 1838 that Dr. McLoughlin organized the Puget Sound Agricultural Company. At that date there were more than a thousand cattle and hundreds of sheep, swine, work oxen, and horses.<sup>36</sup> It was not for two years that the actual transfer of ownership was completed, however, when the value of agricultural products actually exceeded the value of furs.

In 1841 Dr. McLoughlin established a trading post for the Hudson's Bay Company in Yerba Buena (San Francisco). Here he placed his son-in-law, William G. Rae, an enthusiast for livestock, in charge. The home of Jacob Primer Leese was purchased for headquarters and as a residence for Rae. Leese was an American merchant who had married Rosalia Vallejo,<sup>37</sup> sister of northern California's largest sheep operator, General Mariano G. Vallejo.<sup>38</sup>

In the early spring of 1843, Captain Joseph Gale started what is commonly called "the second cattle drive" from California to Oregon. In the wake of that drive<sup>39</sup> came approximately two thousand nine hundred sheep, nine hundred driven by Leese to be sold to settlers in the Willamette Valley and two thousand driven by Rae for the Hudson's Bay account. Apparently the

drivers for all of this livestock were furnished by the Hudson's Bay Company. Seventy-five days were required for the trip and two hundred head were lost while crossing the Klamath River, but the ewes lambing en route more than made up for the losses. In order to keep the flock moving steadily, from four to eight pack horses were used to transport the new-born lambs. Apparently these sheep were purely *churros* and served as a base for expanding Oregon flocks.

Dr. McLoughlin now had sufficient numbers with the new flocks that he could transfer and distribute the good qualities of his Southdowns, Cotswolds, Leicesters, Cheviots, and Merinos through crossbreeding. Widespread doubt existed as to the possibility of succeeding with small flocks because of the wolves, but the flocks at the missions and in the Willamette Valley both belied this idea. De Mofras<sup>40</sup> stated that in 1841 the Puget Sound Agricultural Company had six thousand sheep, seven thousand cattle, and two thousand horses, but that five years later Dr. McLoughlin had eight thousand sheep out on shares with settlers in the Oregon region and he is known to have imported eight thousand California sheep<sup>41</sup> in one year. When Lieutenant Wilkes of the United States Navy made his historic trip to the Northwest in 1841, he particularly praised the quality and merit of Dr. McLoughlin's British and Spanish breeds. In 1852 the entire improved flock was taken from Vancouver to Nisqually and the crossbreds from the

<sup>36</sup> George W. Fuller, *A History of the Pacific Northwest*, 119, 120.

<sup>37</sup> Davis, *Seventy-Five Years in California*, 28, 41.

<sup>38</sup> See Chapter 8, p. 133.

<sup>39</sup> Harvey W. Scott, *History of the Oregon Country*, Vol. 3:344.

<sup>40</sup> Margaret Eyer Wilbur, *Duflot de Mofras' Travels on the Pacific Coast*, Vol. 2:105.

<sup>41</sup> Wilbur, *Duflot de Mofras' Travels, etc.*, Vol. 2:108.

original California stock were sold to California buyers at five to six dollars per head.

Wilkes also recorded the presence of a few sheep at Dr. Whitman's mission at Waiilatpu, a flock<sup>42</sup> having been imported from Hawaii for the use of the early missionaries. Both Spalding at the Lapwai Mission in Idaho and Whitman had actually put out a few head of these sheep with the so-called "Christianized" Indians. Another small center of sheep production during this period existed in the French Canadian settlements in the Willamette Valley. These settlers were originally trappers, brought out by the developing fur trade, but they became pioneer settlers in that region. In 1843 de Mofras estimated that these settlements had five hundred sheep, three thousand cattle, and three hundred swine.<sup>43</sup>

The early agricultural settlers around the Hudson's Bay Company posts—as well as those in the Willamette Valley, up near Puget Sound, and around Waiilatpu—concentrated on growing wheat and other cereals. But by the late forties they began to observe the penalty of their one-crop system. The more restless spread southward into the Umpqua Valley in 1849 and down to the Rogue River in 1852. Wheat made an ideal crop for these early farmers, but fear of soil exhaustion, plus the superior marketability of livestock, soon placed an increasing emphasis on sheep husbandry. The California sheep introduced into western Oregon were of low quality, with a coarse open fleece of light weight. They lacked both frame and substance while the colors displayed were black, spotted, and grizzled fully as frequently as the desired white. These sheep possessed hardiness and durability, however. They made an admirable foundation in the wheat-raising settlements on which to cross the British mutton rams and the Merinos which Dr. McLoughlin, his

successor Dr. Tolmie, and the later Americans introduced. This was the stock that settled eastern Oregon and Washington, and its progeny provided the improved Oregon ewe bands for California.

#### CROSSING THE PLAINS TO OREGON

Emigration societies began moving to Oregon about 1840. In 1843 Augustus C. Wirt started fifteen ewes across the plains but there is no record of their arrival and it is commonly supposed the trip was too severe. However, the emigration of 1844 totaled about fourteen hundred settlers and in this train was the small flock of Joshua Shaw and son, Alva C. R. Shaw. They started from Brown County, Illinois, with twenty-five head, intending to use them for fresh meat. But there was plenty of bison available, so that between sixteen and twenty sheep survived the trip. A scrap of a blanket made from their fleeces is in the Museum of the Oregon Historical Society. From 1845 to 1847 several other small bands traveled across,<sup>44</sup> but the first drive of a large band did not occur until 1848.

In that year, Joseph Watt and family started for Oregon.<sup>45</sup> Watt's brother assembled 435 head of sheep, mostly Merinos, at St. Joseph, Missouri. This was a much smaller number than the Watts had expected to drive, but sheep were scarcer or prices higher than they anticipated. The average cost was finally \$1.50 per head. They left Missouri in March, 1848, had nothing but friendly relations with the Indians, and traveled without accident until they reached the

<sup>42</sup> Carey, *A General History of Oregon*, Vol. 1: 307.

<sup>43</sup> Wilbur, *Duflot de Mofras' Travels, etc.*, Vol. 2:111.

<sup>44</sup> Lomax, *Pioneer Woolen Mills in Oregon*, 55, 57.

<sup>45</sup> *Ibid.*, 62-65.

Snake River. At the ford the current was more powerful than they expected. A rugged old ram leading the way crossed safely, but some twenty-five others were swept downstream by the current and lost. However, only one hundred head strayed or were killed on the entire trip. This flock followed the regular Oregon Trail as far as The Dalles, but entered the Willamette Valley via the Barlow Road, across the southern base of Mount Hood and down the Sandy Valley into the broad Willamette bottoms. The Watts settled in Yamhill County in the general vicinity of McMinnville.

The winter of 1848 was a severe one and numbers of sheep died. The wool was pulled from the pelts, cleaned, carded, spun into yarn and knitted into socks. Watt brought a carding machine with him from the East which he set up on the farm. This provided inestimable benefit to all the women of the community. Hundreds of pairs of wool socks were knitted, and in 1849, during the Gold Rush, Watt took a consignment to the California placers. There he found a ready market for them at unheard-of prices. The establishment of a woollen mill in the Willamette Valley was delayed six or seven years by the lure of the gold fields, despite the satisfactory returns from the hosiery venture. The get-rich-quick appeal of the gold country through direct prospecting, lured the younger men from the region, and the restrictions resulting from the labor shortage were augmented by discouragement of capital investment in the pioneer area.

The success of the Watt drive stimulated numerous others to bring sheep with them, but few large flocks crossed the Trail. Promoters of emigration let it be known rather widely that both ewes and rams could be obtained from Dr. McLoughlin on arrival in Oregon, and

the toil of the long herding thereby avoided. Rumors of forage poisoning of sheep along the Sweetwater in Wyoming spread and also of the manner in which small bands tempted the appetites of Indian tribes along the Trail. Losses of sheep en route averaged about 20 per cent. Hence it became important that the value of the animals delivered be in proportion to the risks assumed, and interested emigrants naturally chose high quality flocks and purebred animals. In 1851, Hiram Smith successfully drove three Merino rams all the way from Ohio, whereupon R. R. and David P. Thompson in 1853 trailed a large band of Merinos that figured for many years in Oregon sheep history.<sup>46</sup>

The Census of 1850 showed 15,382 sheep in Oregon, with about one-fourth of them in the Willamette Valley counties of Clackamas, Marion, Linn, Washington, Yamhill, Polk, and Benton. In the western county of Clark, then existing north of the Columbia River in modern Washington, were 1,453 head, while in the corresponding eastern county of Lewis were more than 10,000 head.

#### CANADIAN BOUNDARY SKIRMISHES

The year 1853 brought forth an incident of international consequence based upon the grazing of sheep on San Juan Island. The boundary separating Canada and the United States had not been clearly established in the channel between Vancouver Island and our own mainland, and both countries claimed San Juan. The British interests decided that the establishment of a ranch would enhance their claim, and the Puget Sound Agricultural Company landed approximately thirteen hundred sheep

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<sup>46</sup> Carey, *A General History of Oregon*, Vol. 2: 685-86.

from the steamer Beaver as supporting evidence. The American collector of customs warned the governor of Vancouver Island, James Douglas (also factor for the Hudson's Bay Company), that the animals were subject to seizure for failure to pay duty. Douglas ignored this, claiming that the island was British, and placed his clerk in charge. The following year, when the Company again refused to pay taxes, thirty sheep were seized for tax delinquency by the Americans and sold at public auction. Douglas claimed these sheep were stolen and protested to Governor Stevens of Washington Territory.

Matters remained at stalemate until an American settler, Lyman A. Cutter, shot a pet pig belonging to the Hudson's Bay agent. This pig had broken into Cutter's garden, but the latter immediately notified the agent and offered to pay double the value. However, the Britisher saw a chance to settle the question of sovereignty and started criminal action. An attempt was made to take Cutter to Victoria for trial, but Cutter recovered his rifle from the arresting officer, stood his ground, and threatened to enroll the armed support of other Americans. This was more than the British expected, and they withdrew.

Soon American troops under Colonel George Pickett (of Gettysburg fame) and British naval forces landed on opposite sides of the island. After considerable maneuvering, military and political, and further arbitration procedure, the island was awarded to the United States. Thus the taxation of a flock of sheep and the shooting of a trespassing pig led to the determination of our final international boundary.

#### EARLY EXPORTS OF OREGON FLOCKS

When the demand for food in the California gold fields sent buyers scurry-

ing northward in the fifties, it was discovered that the improved blood introduced by Dr. McLoughlin and others had resulted in a better quality of sheep than could be found in California. The first drive south was in 1850, when a man named Williamson returned from the placers with a mule loaded with Mexican coins with which to purchase fat sheep.<sup>47</sup> These were bought in the Willamette Valley from flocks descended from the Leese drive of 1842-43, and some criticism developed concerning the wisdom of permitting the Californians to draw on the limited sheep population so extensively. High prices soon overruled objections and even though hardships may have been imposed temporarily, the long time policy was good, as it helped to clear the valley of the less desirable *churro* blood. Such sheep also brought in considerable useful cash as they sold for five dollars and six dollars per head. Oregon's early sheep authority, John Minto, sold most of his wethers to the mines, and refused an offer of \$15 per head from a California buyer for his ewe lambs.

California breeders developed an increasing liking for the Oregon ewes as the decade advanced. Not only did the animals have finer, heavier, denser fleeces, but they were stronger-boned, more rugged and thicker-muscled. Hence many of the pioneer sheepmen of the Sacramento Valley in California introduced ewe bands from Oregon to speed up their improvement, even before the onset of the Civil War. After its close the rate of movement was very high.

All during the decade of 1860-70 sheep continued to be driven overland to California. In October, 1867, Minto observed that 100,000 sheep

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<sup>47</sup> Lomax, *Pioneer Woolen Mills in Oregon*, 76.

had passed south through the Umpqua during the summer; that according to the keeper at the Canyon tollgate, and the Umpqua ferryman, 80,000 head had taken the Canyon Road and 20,000 head had gone over the mountains. It was estimated that 5,000 sheep and other livestock had crossed the Cascades over the Barlow Road. Some had gone through Eugene up the middle fork of the Willamette to the southeastern lake region, thence down the Pitt River Valley to California. The exodus continued until 1869. The source of these migrating flocks was often the Willamette Valley counties of Marion, Linn, and Benton which were heavily overstocked.<sup>48</sup>

Another movement of sheep during the same period was northward into Washington and British Columbia, while the same decade saw the first of the drives eastward into Idaho, Montana and Wyoming.

#### THE MORMON SETTLEMENTS

The first Mormon immigration reached the valley of the Great Salt Lake in 1847. A dozen sheep are of record when they arrived, the property of Miles Goodyear, a Gentile. Goodyear had a stockade and operated a trading post on the banks of the Weber River at the site of modern Ogden. On one of his trips to Santa Fe he had trailed back a small flock of sheep and goats. When he sold his entire holding in November, 1847, to Captain James Brown, a quartermaster in the Mormon Battalion that marched from Santa Fe to San Diego, his bill of sale included—among other items—twelve sheep, seventy-five goats, seventy-five cattle, six horses, and a ten-dollar pussy-cat. Perhaps the value of the cat was determined by bringing the transaction to round numbers, as the total price was three thousand dollars.

No sheep came with the Pioneer Company that blazed the way for the remaining immigrating companies of that season, but Orson Pratt<sup>49</sup> saw sheep, goats, and antelopes in the mountains. These sheep were hairy, had "no wool,"

and were probably Bighorns, but his observation might have been based on *churros*, from care of which the timid Mexican herders might have fled.

After the Pioneer Company left "Winter Quarters" (six miles from modern Omaha), the first immigration moved out on July 4, 1847. It was organized into companies of a hundred wagons, and these into fifties, with their captains, and tens with their leaders. The livestock totaled 358 sheep, 887 cows, 2,213 oxen, 35 hogs, 124 horses, and 716 chickens. The entire group of companies was under the leadership of Parley P. Pratt, and arrived at Salt Lake City safely on September 19.<sup>50</sup>

The sheep included were not uniformly distributed throughout the companies. The first, for example, had fifty-five head;<sup>51</sup> the third, thirty-eight with the first group and three with the second; and the sixth, only eight head. In the first company, commanded by Captain Peregrine Sessions, was a widow, Sally Murdock, who drove her own light one-horse wagon across the plains.<sup>52</sup> This wagon was cut up beneath so that she could tie three sheep under it. These animals arrived safely in Salt Lake City and grew several fleeces in the years that followed. Their wool was washed, carded, spun, dyed, and woven into cloth for her children, herself, and a few friends.

In 1848 President Young's company brought 1,229 people<sup>53</sup> and, among other

<sup>48</sup> Lomax, *Pioneer Woolen Mills in Oregon*, 90.

<sup>49</sup> *Journal History of the Church of Jesus Christ of the Latter Day Saints*, July 28, 1847.

<sup>50</sup> Levi Edgar Young, *The Founding of Utah*, 2nd edition, 121.

<sup>51</sup> *Journal History of the Church of Jesus Christ, etc.*, August 21, 1847, 3; June 19, 1847, 3; August 16, 1847, 3; October 4, 1847, 2.

<sup>52</sup> Glynn Bennion, Office of the Church Historian, Letter to author, August 16, 1938.

<sup>53</sup> "Emigration for 1848," *Church Emigration*, Vol. 1.

livestock, 411 sheep. Heber C. Kimball's company included 662 people and 243 sheep, while Amasa Lyman's and Dr. Willard Richards' companies totaled 502 whites, 24 negroes, and 369 sheep. The number of sheep for the year cannot be compiled from the records in the *Journal History of the Church*. It is still more difficult to determine the number that came across in 1849. Captain Silas Richards and Captain Ezra T. Benson had 467 people and a hundred sheep in their companies; Howard Egan's independent company had none; and the records of George A. Smith's, Orson Spencer's, Dan Jones', and other companies are not complete.

Beginning with 1850 the gold immigrants became so intermingled with the Church immigrants on the trail that records are difficult. In 1850 up to June the statistics at Fort Laramie showed the passing of 16,915 men, 235 women, 242 children, 4,672 wagons, 14,974 horses, 4,641 mules, 7,475 oxen, 1,635 cows, 1,841 sheep, and 61 goats, but this was only a beginning for what followed throughout the remainder of the season.<sup>54</sup> Apparently most of the sheep were headed for Utah, although it is possible that these figures may have included J. W. Cooper's drive from Missouri.

There were ten companies that crossed in 1850 and the fifth company had nineteen sheep. Captain Howard Stansbury<sup>55</sup> while toiling through the Wasatch Mountain passes on his way back from exploring the Salt Lake Valley that fall, met ninety-five wagons which he recognized as the advance of the Mormon immigration of that season. Two bands of sheep averaging about one hundred head each preceded the train, which also included about one thousand head of cattle and five hundred people. Some emigrants this year started from north-

western Missouri near Marysville and owned from five to twenty sheep per family. These sheep were assembled in one flock under the charge of one or two boys in their teens, and were trailed alongside each train.<sup>56</sup> From the time the emigrants left the Missouri River, they came in contact with no sheep other than those accompanying similar expeditions, with the possible exception of Fort Bridger, where Palmer<sup>57</sup> reported a few sheep in 1845. From 1851 forward, very few if any of the companies were accompanied by sheep, although oxen, milk cows, and beef animals were taken along. Horses and mules also were cut down materially.

The little Mormon settlements benefited greatly from the California immigration. In 1850 a New Mexican trail flock, arriving too late to continue on to California, remained during the winter in Evansville (modern Lehi), twenty-five miles south of Salt Lake City. The cold was bitter that year, the season hard, and feed scarce. Nearly half of these sheep were traded to Mormon settlers for hay with which to sustain the remainder of the flock, a practice indulged in very frequently as later herds moved across the state. Many Mormon founders obtained their original flocks by this type of barter, for sheep raising was found to be profitable.

In fact it proved advantageous for the "Saints" to exchange supplies for all sorts of utensils and commodities discarded by the California-bound immi-

<sup>54</sup> "Emigration for 1850," *Church Emigration*, Vol. 1.

<sup>55</sup> Captain Howard Stansbury, "Exploration and Survey of the Valley of the Great Salt Lake," 223.

<sup>56</sup> Moroni A. Smith, Interview, January 23, 1939.

<sup>57</sup> Palmer, *Journal of Travels over the Rocky Mountains to the Mouth of the Columbia River*, 75.



FIG. 44—Wolves on the Westbound Trail.

grants. Thus they obtained most of their manufactured articles as well as some of their better grades of livestock. Broken-down and sore-footed animals, after recuperation, built up their flocks and herds. Powers reports that stock breeding was one of Brigham Young's hobbies and that he personally obtained two well-bred Merino rams from a California-bound immigrant train in 1858.<sup>58</sup> The 1850 Census showed Utah as possessing slightly more than three thousand sheep but it is estimated<sup>59</sup> that at least fifty-five hundred sheep of eastern origin alone (not Spanish) were in Utah in 1851.

Yet settlement with sheep was a slow process. Chandless<sup>60</sup> comments in 1855 that sheep were scarce, "troublesome to bring over the plains on account of the wolves," and "at Salt Lake they require watching by day and folding at night. I never saw mutton once in Utah. Sheep

are very seldom killed, for their owners are few and desirous of raising large flocks for the sale of wool. . . . S—— (his host) pressed me very much to return to Salt Lake the following year (1856) with 1,000 to 1,500 sheep, mostly ewes; assuring me they would fetch four to five times their price in Missouri." Mutton brought 7½ pence (15 cents) per pound.

Part of the tithes collected by the Church were used in the building and equipping of Fort Supply to the east of Fort Bridger. This post was established in the mid-fifties to re-equip the incoming immigrants, whose supplies had usually become exhausted along the tiresome trail. A group of colonists

<sup>58</sup> Powers, *The American Merino*, 274.

<sup>59</sup> Moroni A. Smith, Interview, January 23, 1939.

<sup>60</sup> William Chandless, *A Visit to Salt Lake*, 144.

irrigated fields, grew wheat, made flour, and kept cattle, swine, and sheep. This forestalled the necessity of moving supplies to meet the westward-traveling colonists at a point usually some two weeks distant from Salt Lake City. Fort Bridger and Fort Supply had the first permanent flocks in Wyoming.

#### THE SOUTHERN TRAILS

More than a million sets of ovine hooves beat their way through the Arizona dust en route from New Mexico to the California gold fields. The southern trails were not easy. The southernmost, used in the fifties, left the Rio Grande at Las Cruces, New Mexico, and did not strike water for nearly sixty miles, when the Rio Mimbres was reached north of modern Deming. From here it led to the Animas Valley in southwestern New Mexico, and thence through Guadalupe Canyon into Arizona and San Bernardino Springs. The trail then swung south of the border into Sonora and followed the Lamorita to a point directly south of Bisbee where the Mexican government at one time operated a customs entry port. Continuing west a few miles, the drivers struck the San Pedro River at San Pedro, Sonora, and crossed over the divide to the west and north along the Terranate to reach the Santa Cruz. This stream was followed to the Gila, and down the latter the flocks struck the Colorado River and the California line at Yuma.<sup>61</sup>

In 1850 and 1851 quite a number of bands crossed by this route. One traveler, John Gallatin, had taken the scalps of many Indians, selling them to the Mexican Government preceding the War with Mexico.<sup>62</sup> When his flocks reached Fort Yuma, a point where he had obtained most of his scalps, he and twenty-five other American sheep drivers were killed by the Indians. Gallatin

had twenty-five hundred sheep from New Mexico in his flock, and the other Americans had several times as many, but all the sheep were apparently retained by the Yumas.

In 1851 another trail driver, Josiah White, reached the Colorado safely with 4,217 head. Crossing, he was just preparing to enter the desert when the Indians began to press his drivers hard, killing and stealing the sheep. The water gave out and the sheep would not travel during the day because of the intense heat. To save their own lives, the men hastened on to water, but the Indians drove the flock off at night and the entire investment was lost.<sup>63</sup>

Near Tucson, on the Santa Cruz River, Bartlett passed an American named Coons, who was trailing fourteen thousand sheep towards San Francisco.<sup>64</sup> Sixty persons accompanied him to protect his flock, three-fourths of whom were Americans and one-fourth Mexicans.

In 1855 John Abel started from Chihuahua for California with ten thousand sheep, fifty cattle, and five wagons. He passed the San Bernardino Rancho in southeastern Arizona safely, but below Tucson his party was attacked by the Apaches under their great war chief, Mangas Colorado. These Indians poisoned the water, stole their horses, and attempted to kill their herders. Nevertheless, the expedition finally reached its destination.<sup>65</sup>

The first government exploration across the route along the 35th Parallel was made in the autumn of 1851 under the direction of Captain Lorenzo Sit-

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<sup>61</sup> Report of the Governor of Arizona Territory to the Secretary of the Interior for 1896, 18.

<sup>62</sup> John C. Cremony, *Life Among the Apaches*, 116.

<sup>63</sup> Bartlett, *Personal Narrative*, Vol. 2:177.

<sup>64</sup> *Ibid.*, Vol. 2:293.

<sup>65</sup> *Portrait and Biographical Record of Arizona*, 203.

greaves. The expedition left the Little Colorado River on October 8 and worked westward just above the aforesaid parallel, practically following the route used by Father Garcés in 1776. Both food and water were very scarce.

After a march of seventeen days, the sheep that had been driven from Zuñi as a meat supply began to suffer from sore feet. A two-day halt was ordered, and some relief was given the sheep by filling the cracks in their hoofs with resin and a pine tree gum. For two days at a time the animals went without water and received little or no forage. Many of the mules died and most of the sheep had to be slaughtered. The cured bacon shrunk so under the hot sun that when the march was half completed the probability of starvation faced the expedition. Toward the end they were embroiled with hostile Indians for days, and finally arrived at Fort Yuma in a most deplorable condition, almost starved to death.<sup>66</sup>

This experience taught a lesson to all of the official parties that followed. Both Lieutenant Whipple in 1854 and Commander Beale in 1857 were careful to base their meat supplies on sheep, so that they would not have to fall back on their transport mules. When the United States-Mexican Boundary Commission started to run the boundary line for the Gadsden Purchase, much of the work had to be done through an arid, barren desert. Hence a well-equipped expedition was necessary. "With wagons, mules, camp equipage, military escort, a herd of 25 cattle and a drove of 108 sheep, the procession was impressive."<sup>67</sup> All of these sheep were taken for food purposes to supplement the cattle.

#### FLOCK IMPROVEMENT

As American settlement in California increased following the War with

Mexico, dissatisfaction with the Spanish type of sheep developed. The great wave of Merino importations into New England, New York, Pennsylvania, and Ohio had accustomed the immigrants to the higher quality, larger-framed, better-fleeced animals, and it seemed economically unsound to continue the production of the carelessly bred *churros*. The final phase of the western movement, therefore, was the improvement of the coast flocks.

A tremendous demand developed for both fine-wooled and mutton-bred sheep, and California breeders took the lead in raising the average merit. Despite the difficulties of delivery, they hesitated on neither prices nor numbers in introducing better blood and pedigreed animals. Direct shipments were made from England, Australia, China, and Hawaii by steamship and sailing vessel, while from the eastern part of the United States well-bred animals were driven across the Overland Trail, were shipped around Cape Horn, or were transferred across the Isthmus of Panama to be re-embarked on the Pacific.

The pioneers in introducing improved sheep were the Whitneys of San Francisco.<sup>68</sup> Frank Whitney started several hundred high quality Merinos from Australian ports to the United States in 1850, but only 120 landed safely. The following year he was joined in the sheep venture by his younger brother, J. Parker Whitney, a prominent sportsman of the last century, who placed the flock on a quarter-section tract in Placer County, midway between Auburn and Sacramento. In 1859 Parker Whitney took over the management of this flock, and it is one of several pioneer flocks that

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<sup>66</sup> Lockwood, *Pioneer Days in Arizona*, 106-9.

<sup>67</sup> *Ibid.*, 103.

<sup>68</sup> J. Parker Whitney, *Reminiscences of a Sportsman*, 17-18.

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have been carried through to the present day.

Chinese rams were imported in 1852 and were crossed on the Mexican *churros*. Perkins<sup>69</sup> states that their only recommendation was "their tremendous fecundity, the ewes often bearing triplets, and sometimes even five or seven at a birth." Most of them bred twice a year, but their quality was so bad that Perkins remarked "they might just as well be jack-rabbits, even though lamb chops were \$1.00 to \$2.00 a plate."

Two years later the first registered Merinos arrived. Again quoting Perkins, "In 1854, enterprising sheep raisers, believing . . . that . . . higher classes of sheep could be profitably grown for their fleece alone, set about importing purebred Merinos from Vermont and New York. Curtis and McConnell of Sacramento brought the first Spanish Merinos from Vermont. Other importers of Spanish and French Merinos followed; as well as of Cotswolds, Leicesters, and Southdowns. Large quantities of Australian sheep (mostly Saxon Merinos) were also brought in and sold at extreme prices." California imported almost all of the known varieties of Merinos in the first decade of occupation.

County and local fairs were organized very early and the first California State Fair was held in 1854, with a few improved sheep on exhibition. In 1856 at the State Fair, awards were made to Leicesters and Southdowns, and in 1857 there were two exhibitors of French Merinos. One of the latter, Searle and Winn, won the championship on the French Merino ram, Napoleon, and exercised an important influence on sheep breeding for several years. Searle and Winn procured their first purebreds in the mid-fifties from J. D. Patterson's flock in Chautauqua County, New York. At the 1860 State Fair the breeds were numerous, prize money being given to

Spanish, French, Saxon, and Silesian Merinos; Southdowns; Cotswolds; Leicesters; Shropshires; Cheviots; and Chinese.

The season of 1859 saw the advent on the coast of two men whose influence on California sheep improvement cannot be overemphasized—J. D. Patterson of Westfield, New York, and Solomon W. Jewett of Weybridge (near Middlebury), Vermont. Both brought their first shipments to California via the Isthmus, and both later trailed sheep overland. Patterson located in the lower San Joaquin Valley while Jewett located in the Kern River Valley not far from Bakersfield. As a base for distribution Patterson first bought a small ranch at Brooklyn (now within the corporate limits of Oakland), but in 1866 he purchased eighteen thousand acres on the west side of the San Joaquin River in Stanislaus County. This ranch was known as the Rancho del Puerto, and was ultimately expanded to thirty thousand acres, finally bearing the name "Patterson Colony."

Steamship rates were extremely high in 1859 (five hundred dollars per head for the purebred Shorthorns he shipped and one hundred dollars per head for sheep) so he decided to try trailing his next consignment across the plains. A cousin of his had married Ira H. Butterfield and settled in Michigan in the early fifties, and Patterson and Butterfield had formed a partnership arrangement in Michigan for the distribution of purebreds in that state. Hence Butterfield was a convenient aide in making arrangements for the overland drive. A crew of men from Wisconsin was hired to do the driving and Butterfield's son, Ira H. Butterfield, Jr., went along as representative of the owners

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<sup>69</sup> J. E. Perkins, "Prize Essay," *California State Agricultural Society*, 1864, in Bancroft Library, Berkeley, California.

and as a sort of super-cargo. His diary of the trip is one of careful records of the overland sheep drives.<sup>70</sup>

On April 11, 1861, approximately six hundred head of French Merinos and seventy head of registered Shorthorn and Devon cattle were shipped by rail from Detroit to St. Joseph, Missouri, where they were trans-shipped by river boat to Nebraska City, Nebraska. On May 7, they left the latter point to begin the overland drive.

One hundred twenty-seven days elapsed before they reached Sacramento, and the average daily drive was about fourteen and a half miles. The shortest day's trip was only three and a half miles and the longest was thirty-one. They laid over twenty-four days, either for repairs or to recuperate their stock, and they were tied up three days crossing the South Platte at Ogallala. The distance trailed was 1,850 miles to Sacramento, with an additional hundred to the ranch and nearly a thousand miles by rail and Missouri River steamer.

The route followed the Platte, the North Platte, the Sweetwater, South Pass, the Big Piney, the Green River, the Blackfoot, the Portneuf, the Snake, the Raft River, Goose Creek, Thousand Springs Valley, the Humboldt, Tuft's Meadows, Lassen's Meadows, a series of springs, Rush Valley, Susan River, Susanville, the north fork of Yuba River, and Yuba City. Then Sacramento was reached on October 8. At Sacramento most of the sheep and part of the cattle were sold, and young Butterfield drove the remainder to Brooklyn for wintering. From this point the previously unsold animals were distributed. Prices were not as high as in the first shipment, but because of lower costs of transportation the profits were somewhat greater.

Rivalry between Patterson and Jewett sheep was strong. In an advertisement appearing in a San Francisco paper June

10, 1862, Patterson denied that his flocks were in any way related to those of Jewett, or that they had been procured from any flocks then on the Atlantic Coast. The foundation stock of both came directly from France. In 1851 Jewett imported eighteen rams and eighty-two ewes from the flocks of Gilbert, Cugnot, and Guerin at heavy expense and installed them on his farm at Weybridge, Vermont. All told he made between fifteen and twenty separate importations from France at a cost of more than fifty-five thousand dollars. From his Vermont farm, sales were made over the North Atlantic states as far west as Michigan and Wisconsin. Between 1859 and 1862, Jewett made three shipments to San Francisco via the Vanderbilt line of steamers, the transportation costs totaling \$8,500, and three more extensive drives were made across country to Kern County.<sup>71</sup>

The year 1860 saw the largest importation of record for fine-wooled blood into California. Sheep were introduced from all sections of the world, and Los Angeles County alone received more than one hundred thousand head. A. W. Peters drove one band of four thousand head all the way from Ohio, spending a year and a half on the road. Corbett and Dibblee imported a large number of finely bred mutton sheep from Scotland. With them came a pair of Scottish shepherds who had much to do with the success of the flock in the showyards of the next few years. Harry Quinn drove two large flocks overland to Delano in Kern County, and was a pioneer in importing both wool and mutton rams for use in the same flock to maintain a balance between fleece and flesh qual-

<sup>70</sup> Butterfield, *Michigan to California in 1861*, Vol. 2, July, 1927: 392-423.

<sup>71</sup> Hugh S. Jewett, Bakersfield, California. Letters to author, February 2, April 17, April 29, 1939.

ties. While he was never an importer of purebreds on a commercial basis, he handled numerous ram orders for friends and neighbors engaged in the sheep business. Many Canadian and Australian sheep also were introduced during this period.

In 1861 Corbett and Dibblee brought in 125 finely bred Vermont Merinos, just one season after the arrival of the Scotch shepherds. Wool production began to flourish, and the clips of Los Angeles County for both 1862 and 1863 exceeded one million pounds, with a vast improvement in quality. Previously the fleeces had been preponderantly of "blanket" grade, but the use of eastern rams soon swung the average to half-bloods or better. While Patterson and Jewett sheep were being distributed from Colusa and Yuba counties southward, bands of Oregon ewes were im-

proving the quality in the more northern settlements of the Sacramento Valley. This tremendous urge for improved stock at the close of the fifties and the beginning of the sixties laid the foundation for the spectacular drives of sheep that populated the greatest portion of the inter-mountain region.

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The westward sheep movement finished with the close of the Civil War. By that time New Mexico, California, and Oregon had more than one-eighth of the entire sheep population of the country. The quality of the coast flocks had been improved so much that a strong demand was stimulated for them in the so-called "territories." Before the close of the sixties the direction of sheep trailing had definitely changed from westward to eastward.

*The roots of ovine husbandry on the Pacific Coast penetrate a complete stratum of Spanish culture, but its flowering required the aptitude, fertile imagination, foresight, judgment, and financial hardihood of a mid-century generation of New York and New England flockmasters.*

—Wirt Washington Burch

♦ 11 ♦

## Covering The Coast

THE Pacific states were less influenced by the passions and vicissitudes of the Civil War than any other section of the nation. Practically none of the agricultural products exported from the region was affected adversely, and the demands of Yankee ship captains for wool, hides, and fats brought prosperity to seaports serving the California and Oregon hinterlands. When the army demand for wool disappeared the tumbling prices had only a cursory effect, while the panic of 1873 delayed the growth of the industry but momentarily. Throughout the late seventies and early eighties these states built up a massive surplus that provided the foundation for the flocks of the "territories," as well as the base for the great commercial feeding industry.

\* \* \*

In 1860 the three states on the Pacific had a total of 1,184,211 sheep, but by the next census the population had practically trebled—3,130,373 head. When the crest of the trans-Missouri demand broke with the eighties, the region possessed 5,528,394 sheep, and the flocks were even larger during the first third of that decade.

Heavy trail movements depleted the population somewhat, as the count of 1890 showed only 4,520,719 head. Oregon was gaining on California. When the century closed it had over three million sheep; California, two and a half million;

and Washington a little under a million. California's relative position was not recovered until the end of the first World War.

In more recent years the continual reduction in numbers enforced on the National Forests and the drouths of the mid-thirties undermined the productive importance of the Coastal States, while additional handicaps were suffered from the labor shortage during World War II. Yet the seasonal market advantage enjoyed by the early-dropped California lamb crop, the unique market established by the Oregon woolen mills, and the great shed-lambing operations in the interior of Washington are factors which preserve the commercial prestige that these states acquired in the eighties.

### CALIFORNIA

Sheep husbandry in early California had many natural advantages. The native grasses were nutritious and widely distributed. Most characteristic to the pioneer was the wild oat, but a few seasons of land breaking and bad grazing management during drouth proved highly destructive. What remained of this valuable grass became confined to the foothills of the Sacramento Valley.<sup>1</sup> Two other grazing plants were as widely

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<sup>1</sup>C. A. Menefee, *Historical and Descriptive Sketchbook of Napa, Sonoma, Lake, and Mendocino Counties*, 275.

distributed—bunch grass and burr clover—while a third, alfileria, was especially important in the San Joaquin Valley and southward. Powell wrote in the early seventies:

Sheep raising is fast becoming one of our most important products in the state. Many persons who commenced this business in absolute poverty have in a few years grown rich. Sheep, in this state, are never kept under shelter and, except for a few of fine blood, seldom get any food save such as they can pick up on the open hills and plains. They are sheared twice a year, and are little liable to disease. . . . Common sheep are worth two to four dollars each. "Sheep husbandry in this State will always pay better than any other State in the Union, for here the weight of the animal is 10 per cent greater than in the eastern states; while the fleece is 20 per cent larger, and the increase 100 per cent more; besides the sheep generally live longer." If the exemption from disease, the more rapid increase, the greater weight of fleece and mutton, the saving in buildings, sheds, and cultivated food, and the difference in the costs of pasture land, be taken into consideration, there is a large total in favor of the wool growers in California.<sup>2</sup>

Powell "over-sold" the solution of the fertility, disease, and cost-of-grazing problems. The early Californian disregarded both scab and ticks, and the control of these two diseases assumed major proportions in the later seventies and early eighties.

The pattern of sheep husbandry in the state was already established by the end of the Civil War. Transition from Spanish to American control was nearly completed, and the life at the *haciendas* had taken on the idyllic quality so deftly described by Sarah Bixby Smith.<sup>3</sup> At ranch headquarters, the seasons provided a succession of rural panoramas.

Most of the food supplies were grown on the ranch and the meat was home-slaughtered. On the larger establishments a sheep was killed each day and a beef each week. Salt pork, bacon, and hams were home-cured, and chickens, turkeys, and ducks were available for feasts and holidays. The mountain slopes, mesas, and lakes furnished quan-

tities of wild geese, ducks, pheasants, and quail. Fruits and vegetables came from the orchards and gardens, and grapes and wine from the vineyards. Of the outside supplies, sugar, flour, and coffee, in huge barrels and sacks, were hauled to headquarters in enormous wagons drawn by long hitches of mules, guided by a jerkline and controlled from a pair of horses at the wheels.

One of the first innovations by the incoming Americans was the introduction of windmills. The whole system of water supply was changed from springs, dams, and ditches to wells and pumps. *Acéquias* sounded romantic, but seemed neither sanitary nor convenient to New Englanders in the new land. The picturesque well sweeps, which the patient Indians tended, never suited the impatient Americans. Imported ideas as to the suitability of available water for sheep, cattle, and horses were soon exemplified in water troughs, tanks, and other ranch equipment.

Shearing and dipping were the big seasonal events at ranch headquarters, while breeding and lambing usually took place out on the open range. Life with the flock on the mountains or plains, struggling for grass and water, was nomadic, frequently heroic, and in distinct contrast to life around headquarters. The traditions and customs of the Spanish dons, as modified by the American immigrants, were preserved at the *hacienda*, but, out with the flock, the routine learned by the Mexican, the Indian, the Basque, the Frenchman, and even the Chinaman, prevailed. Mary Austin<sup>4</sup> has written sympathetically of these, especially of the Bearnaise French and the Basques.

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<sup>2</sup> John J. Powell, *The Golden State and Its Resources*, 55–56.

<sup>3</sup> Sara Bixby Smith, *Adobe Days*, 40–48.

<sup>4</sup> Mary Austin, *The Flock*.

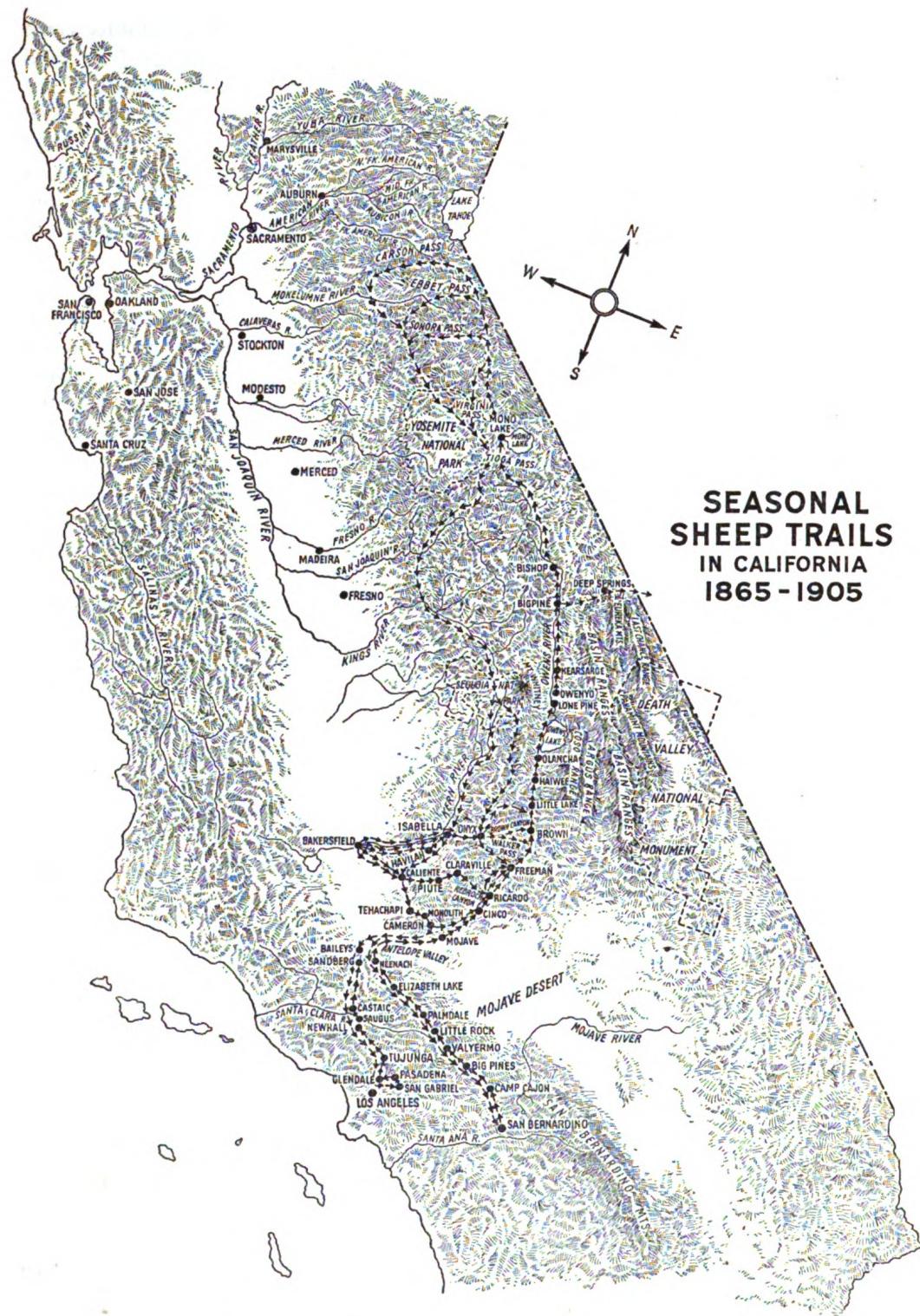


FIG. 45—Seasonal Sheep Trails in California, 1865–1905.

In California was re-enacted annually the customs of old Castile and the travels of the *transhumante* flocks. When lambing, shearing, and dipping were completed and the grass at the lower altitudes dried, the herders began to head for the Sierras. From four to six weeks they grazed the sheep along the trails in bands of four to eight thousand head, until they reached the mountain meadows and woodlands which each shepherd personally liked the best. Until the advent of the Forest Reserves at the end of the last century, the flocks regularly embarked each spring on the long trail up through Owens Valley, while the fall saw their return. Characteristically, they proceeded northward on the eastern slope of the Sierras. But returning, many of them crossed the divide to graze down the gentler slopes on the western side, traveling through the San Joaquin foothills, the King's River country, or the Kern Valley. It was believed at that time that the mountain grazing increased the wool clip one and a half pounds per head.

The trunk of the trail lay along the eastern slope of the Sierras, in the deep valleys which characterize the great ranges. The southern end began in the Mojave country, and in very dry years flocks came from as far south as the San Gabriel Mission and San Bernardino. These latter found a recuperating point in the Antelope Valley southeast of the Teháchapi foothills and west of the desert. Northward, beyond the foot of Teháchapi Pass, the flocks climbed up to the mesa through Red Rock Canyon and continued onward through Haiwee, Olancha, and Lone Pine. In the wetter years some shepherds would work eastward toward the Coso Range and even into the Panamints. However, to continue up the face of the Sierras, they had to return once more to the valley. At

Owens Lake the trail narrowed sufficiently that the tax collector could levy on all bands.

Here also they pay license for the open range, two to five cents a head, payable by actual count in every county going or returning. As the annual passage is often twice across three or four counties, the license becomes, in the minds of some herders, a thing worth avoiding. Narcisse Duplin . . . told me how, in a certain county where the land permitted it, he would hide away the half of his flock in the hills, then go boldly with the remnant to pay his assessment, smuggling forth the others at night out of the collector's range.<sup>5</sup>

From the viewpoint of the local authorities the trail bands provided too tempting a source of revenue, and their combined avarice tended to retard the seasonal movement as the years passed.

North of Owens River the trails started to fan out. Many began turning up the steep valleys directly into the Sierras; some continued north past Bishop to the Mono Lake area; while still others turned eastward over the Basin Ranges, via Deep Springs and Lida, to the speculative grazing on the Nevada side of the line.

The principal trails out of the southern valleys led over Teháchapi and Walker Passes. Further north Tioga Pass, above Yosemite, was often tried for returning in the fall. Sonora Pass, above Merced, and occasionally Ebbetts Pass, were used eastward and westward for both spring and fall crossings. But sheep were not limited to the known passes in their movements, and most successful shepherds had favorite routes not known to competitors. Many of the early trailers out of the Bakersfield country avoided Teháchapi and traveled east through Caliente, then over Piute Mountain. Others swung farther north toward Walker Pass, but at Onyx descended southeastward through Brown Canyon. Still others, instead of crossing at Walker

<sup>5</sup> Austin, *The Flock*, 80-81.

Pass, continued up the south fork of Kern River to reach the crest north of Walker and come down at Little Lake or beyond.<sup>6</sup>

Milne recognized three classes of sheep owners in the early days of the American occupation in California—"the large rancher who owns leagues of country, whose sheep are divided into flocks or bands of two to three thousand head each; the smaller holder who owns or rents land and may have five to ten thousand head; and the interloper, or small beginner, who owns no land, may work up to have a band." The latter "slinks up some far away unoccupied canyon, where he pitches his tent until all the feed is eaten out, when he folds the said tent like the Arabs and steals away like the shepherd in Milton's Lycidas to fresh woods and pastures new! He is, in very sooth, the bummer tramp among sheepmen. . . . He is kept vigorously to road limits and to the statute limits of six miles travel per diem."<sup>7</sup>

Before the specialized agricultural industries developed in California, all of the level land and valleys had been grazing ground for tens of thousands of scraggly, long-horned cattle and equally as many sheep. This was especially true of southern California. Los Angeles, Kern, Tulare, Fresno, and Monterey counties, and most of San Joaquin, were "sacred"

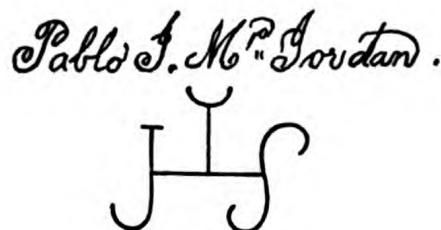
to sheep and cattle. The sheep gradually out-survived the cattle, but the plow-share suddenly drove out the sheep. Up into the foothills and all over the slopes of the Coastal Range the latter swarmed, and soon Monterey, San Luis Obispo, Santa Barbara, Los Angeles, and San Diego counties were overstocked.

#### SAN JOAQUIN VALLEY AND WESTWARD

Development north of the San Bernardino range and east of the Coast range came rapidly after the Civil War closed. The Americans were much more aggressive than the Spanish or Mexicans in entering the San Joaquin Valley and pushing up into the Sierras. Bakersfield became the center of the grazing industry. Most impressive of the early sheep establishments was that of Edward Fitzgerald Beale, comprising the great La Liebre, Castaic, Los Alamos y Agua Caliente, and Tejon *ranchos*. Including the broad sweep of mountains and slopes from west of the Tejon Pass to northeast of the Tehachapi, and enclosing the upper reaches of Antelope Valley within its boundaries, the privately owned area exceeded three hundred thousand acres, and the public lands used exceeded a million. Assembled by the General at

<sup>6</sup>C. F. Harper, Bakersfield, California. Interview with author, December 16, 1941.

<sup>7</sup>R. D. Milne, "Sheep Herding in California," *The Californian*, Vol. 1:224.



Recorded December 9<sup>th</sup> 1851 by James W. Burrough Recorder

FIG. 46—Early sheep and cattle brand of Pablo I. McJordan traced from the Santa Barbara brand book. (Courtesy Senator James J. Hollister.)

five cents an acre through purchases of tracts held by various Spaniards and Mexicans resident in Los Angeles, it had within its boundaries a deserted Spanish fort (Fort Tejon) and enjoyed what General Beale once described as "a refreshing atmosphere of perpetual spring which never becomes close summer."

The herders for the ranch, some three hundred, were drawn from the small village of Monte, near the entrance to Tejon Canyon. In 1872, Nordhoff reported that there were more than a hundred thousand sheep on the various ranches, and that one could ride for eighty miles on the county road within the great estate. His description of the method of handling the bands is of interest:

What we call at home a flock is in California called a band of sheep. These bands consist of thirteen hundred to two thousand sheep and each band is in the charge of a shepherd. . . . The sheep are scattered over many miles of territory, but each band has a limited range, defined somewhat by the vicinity of water, and it is customary in California to drive them every night into a corral or enclosure, usually fenced with brush and with a narrow entrance. . . . The shepherd sleeps nearby, in a hut, or, in the mountainous part of the Tejon Rancho, in a *tepestra*. . . . The *tepestra* is to protect the shepherd himself against the attacks of grizzly bears which are still abundant in the mountains. . . . The *tepestra* is a platform about twelve feet high, built upon stout poles solidly set into the ground. On this platform the shepherd sleeps, in the mountains, at the entrance to the corral; the grizzly bear cannot climb a pole, though he can get up a tree large enough to give his claws a hold. It is, I believe, not infrequent for a grizzly to stand up at the side of a *tepestra* at night and try to rouse the shepherd. But all the men are armed with guns which they carry day and night. The grizzly does not usually attack sheep. . . . Indians, Spaniards, Chinese, and some Scotchmen, serve as shepherds in California. The last are thought the best, and the Chinese make very faithful shepherds if they are properly and carefully trained. They are apt to herd the sheep too closely together at first. Dogs I have found but little used in the sheep ranches I have seen. They are not often thoroughly trained and where they are neglected become a nuisance.<sup>8</sup>

Since these days preceded the herder's wagon and the modern camp tender's equipment, the rations and other supplies were sent out weekly by burro or mule-back. As the supplies were delivered, the "ration-master," as Nordhoff entitled him, counted the sheep, the herders having to account for each missing one by presenting the pelt or other evidence confirming the reason for its loss. Shearing was conducted by the Indians, and required eight to nine weeks for completion. The sheep were marketed in San Francisco. Sometime in the nineties, after the death of General Beale, his son converted the property to a cattle ranch.

Probably the most remarkable story of El Tejon came from the drouth of 1876. The flocks had dwindled to fifty-eight thousand head, and the fall rains failed to arrive. At no point was it possible to hold even half a band, so in December the major-domo, José Jesus Lopéz, turned all of the sheep out in the higher reaches of the mountains, without herders. All through the winter, spring, and summer they remained unattended. When the rain finally came in October, 1877, fifty-three thousand head were gathered from the sheep believed abandoned.<sup>9</sup> This is an unparalleled record of ovine survival under feral conditions.

Around Bakersfield there gradually grew up a number of sheep towns, Delano, Famoso, Buttonwillow, Weed Patch, Caliente, and Havilah, where different flocks were outfitted, shorn or "headquartered." Harry Quinn received his mail at a post office harshly christened Rag Gulch. During the same drouth of 1876 he tried to move twenty-two

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<sup>8</sup> Charles Nordhoff, *California for Health, Pleasure and Residence*, 234-35.

<sup>9</sup> Austin, *The Flock*, 235.

thousand sheep north out of the dry region, but in the Deep Springs Valley, east of Bishop, he lost all but twenty-two hundred head, a 10 per cent salvage.<sup>10</sup>

The most important sheep interests in Bakersfield came to be centered in a quiet Frenchman, Louis Olcese. At first the junior partner of the firm of Ardizzi and Olcese, he gradually took over the management. He not only became one of the largest operators but, through financing many Basques, French, and Scotch herders, came to control hundreds of thousands of sheep. His shepherds and bands roamed up and down the Sierras. During the days of the great trails out of California he sold, or had a financial interest in, more than a million head that went north and east. Through direct or indirect connections with him, numerous families prominent in the modern sheep industry got their start—the Soldumbbehrys, Ansolabeheres, Bastanchurys, Etcheverres, Etchegarays, Etcharts, Espondas, and Oronos.

Three European races were strongly successful in the Bakersfield region—Spanish Basques, French Basques, and Bearnais French. An old Spanish family that had a great influence in the sheep industry in the Bakersfield district was the house of Noriega. Vicente Noriega came to the region before the Civil War and Faustino Noriega arrived from Spain in 1871. The latter became identified with the Kern County Land Company in 1879, ultimately becoming its foreman. In 1882 he went to Miller and Lux as their sheep foreman.<sup>11</sup>

#### MILLER AND LUX

The largest sheep production in the western part of the San Joaquin Valley, King's River Valley, and the Kern River country was that of Miller and Lux. Cattle operations were started by this firm in the fifties, when each partner was

an independent operator. But it was not until the seventies that they became important sheep raisers and not until the eighties that the final pattern of their production was established. Headquarters for the entire ranching operation were at Los Baños in Merced County, but the sheep were handled from two headquarters. The northern section was at Firebaugh in Fresno County, running from Los Baños to Mendota, and the southern was at Buttonwillow on the Buena Vista Slough in Kern County, extending from the Kettleman Hills to Buena Vista Lake.<sup>12</sup> The northern division at Firebaugh usually ran about thirty thousand ewes, and the southern division at Buttonwillow supported about forty thousand.<sup>13</sup> In addition, there were ten thousand ewes run in Washoe County, Nevada, to keep tramp sheepmen away from the waterholes and feed which the company wished to reserve for the cattle.<sup>14</sup>

For nearly forty years "Johnnie" Smith was general superintendent at Firebaugh. The first sheep superintendent under him was an American named Vanderlip.<sup>15</sup> He continued in charge up to 1900, when he was succeeded by Peter Arbios of Mendota. The latter retired in 1914, and was followed by Ed Selecman. These men also acted as sheep buyers for the Miller and Lux packing houses at San Francisco, Oakland, Los Baños, and Buttonwillow. The first two of these plants were large slaughterers of sheep. San Francisco

<sup>10</sup> Austin, *The Flock*, 165–66.

<sup>11</sup> Frank Noriega, Bakersfield, California. Letter to author, July 10, 1941.

<sup>12</sup> Sodie P. Arbios, Stockton, California. Interview with author, November 20, 1942.

<sup>13</sup> Arbios, Letter to author, July 23, 1941.

<sup>14</sup> W. P. Wing, California Wool Growers' Association. Letter to author, August 21, 1941.

<sup>15</sup> Arbios. Letter, August 14, 1941.

had standing orders for two shipments each week of five cars of lambs, two cars of wethers, and one car of ewes, while Oakland required semi-weekly two cars of lambs and one car of mixed wethers and ewes. Previous to 1900 all orders were for ewes and wethers, lambs not being slaughtered.<sup>16</sup>

"Pete" Arbios made one important contribution to the operation when he started buying Nevada and Oregon wethers (later, lambs) and fattening them on corn, bean, and stubble ground in the vicinity of Stockton.<sup>17</sup> By 1910, the firm was feeding fifty thousand head and from the early part of World War I to 1925 it was handling seventy-five thousand to eighty thousand head. Those that failed to fatten were shipped to Los Baños for further feeding. The culs from them were sent to Buttonwillow where they were finished on chopped hay and barley, mixed with molasses.

The first superintendent at Buttonwillow was Faustino M. Noriega who took charge in 1882. Noriega was born in Spain but became a naturalized citizen and managed the Buttonwillow division through 1893. During his service as superintendent he started operating as sheep buyer for the Miller and Lux packing plants. His greatest contribution, however, was in originating the modern style of sheep ranching in the Kern River country and in improving very greatly the quality of stock. He paid as much as thirty thousand dollars for single flocks of sheep, and from them sorted off improved breeding stock. Noriega imported hundreds of good Rambouillet rams from eastern flocks, and purchased others from such leading California breeders as the Jewetts, Glide, Blacow, and Pellisier.

At both Firebaugh and Buttonwillow great shearing plants were established.

From 1905 forward the firm operated the two largest power shearing plants in the entire United States.

The management of Miller and Lux's sheep business, from a racial standpoint, was almost international in the Kern County section. Noriega, a Spaniard, was succeeded by Avila, a Portuguese. Then came Oyharcabal, a Basque, followed by Sodie Arbios ("Pete's" son) of Bearnais French descent. When Sodie retired in 1923 a Scotchman named Douglas, who had handled the purebred flock at Firebaugh, took charge. Purebred but unregistered range rams of the Shropshire and Rambouillet breeds were sold regularly from this flock before the first World War.

Summer range was always a problem at Firebaugh, and for many years the sheep from this division were trailed to the Sierras. But at Buttonwillow they were carried through the summer in the old swamps. An example was the stubble of Tulare Lake until it dried up, and then in all the wetter country from Buena Vista Lake to Le Moore.<sup>18</sup> About 1923 the sheep operations began to be closed out. All of the Nevada sheep were disposed of at that time.<sup>19</sup> By 1926 everything was sold. While the Miller and Lux cattle operations were best known, their sheep operations overshadowed competitors by a wide margin.

#### THE TRESCONYS

The oldest established cattle brand in continuous use in California is owned by a sheep family—the Tresconys. Of Italian descent, Alberto Trescony came

<sup>16</sup> Arbios, Letter, July 23, 1942.

<sup>17</sup> Frank Arburua, Los Banos, California. Letter to author, October 13, 1941.

<sup>18</sup> Arbios, Interview, November 20, 1942.

<sup>19</sup> J. Leroy Nickel, San Francisco, California. Letter to author, July 18, 1941.

to California in 1842 after driving a large band of sheep from Texas into Mexico. Recognizing the opportunities in the Mexican market, Trescony assembled about three thousand head in Louisiana and east Texas, and drove them alone southward across the Nueces and Rio Grande to Mexico City. Despite the troubles other drovers and traders had with Indians in this region, Trescony traversed the entire trail unmolested and reached his market with minimum loss.

Placing his proceeds in a money belt, he crossed the Barrancas to Guadalajara and went on to Mazatlan. Here he embarked on the "Julia Leidesdorff," manned by a Kanaka crew, and set sail for California. Unfavorable winds delayed the voyage and all of the crew except four Kanakas and Captain Leidesdorff died of scurvy.

Leaving the vessel in Monterey harbor, he started practicing his trade of tinsmith which he had learned in Le Havre, en route from Italy to America. When the gold rush started, he was overwhelmed by the demand for cradles. With the money he had saved and was then earning, he bought sheep and land. The demand for sheep further bolstered his fortune, and he became one of the pioneer flockmasters of the Monterey region, locating at San Lucas. The family continued in the business to the present and owns one of the most important commercial flocks in the state. Intermarriage with the wealthy Aguirre family of San Francisco connects the family traditions still more closely with early California.<sup>20</sup>

#### THE SACRAMENTO VALLEY

While the gold strikes brought the first strong demand for sheep in northern California, the Civil War had finished before marked expansion and improve-

ment got under way. A small number of growers were well established by the time the Civil War began, but after it ended there was a tremendous swing to sheep throughout the entire Sacramento Valley.

The most typical of the larger establishments of the period was the *Rancho Chico* of General John Bidwell. In 1843, while pursuing a party of Indians that had headed for Oregon with stolen livestock, he went as far north as Tehama County where the animals were recovered. Greatly impressed with the upper part of the Sacramento Valley, he determined to possess holdings there eventually.

In 1849 he purchased the splendid *Rancho Chico* on Chico Creek, with headquarters ten miles above the juncture with the Sacramento. This ranch had been deeded to William Dickie in 1844 through a direct grant from the Mexican authorities. It consisted of twenty-two thousand acres (later increased to twenty-five thousand acres), all fertile land "interspersed with grand oaks through which might be seen entrancing vistas and perspectives."<sup>21</sup> The lands extended from a frontage of four miles on the Sacramento River to the foothills of the Sierras fifteen miles eastward. Here the boundary was a thousand to fifteen hundred feet above the valley.

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<sup>20</sup> Julius Trescony, San Lucas, Monterey County, California. Letter to W. P. Wing, Secretary, California Wool Growers' Association, San Francisco, August 18, 1929. Trescony also furnished copies of accounts of his grandfather, interesting in the details of the business revealed as of the seventies and eighties. See Statistical Appendix, No. 1.

<sup>21</sup> Marcus Benjamin, *John Bidwell, Pioneer*, 16. Bidwell reached Dr. John Marsh's headquarters east of San Francisco in 1841, but was soon associated with Captain Sutter at the latter's fort. He participated in the Bear Flag Revolt, the Mexican War, and the period of organization that followed. As congressman from California he worked actively for a tariff to protect the wool grower as much as the wool manufacturer.

The ranch was organized into twenty subdivisions, including among others the Sheep Ranch, the Dairy Ranch, the Meat Market, the Turkey Ranch, the Bee Ranch, and the River Ranch (livestock, hay, and pasture). His flocks averaged around six thousand head, but his entire ranch sales ran about \$750,000 annually and his payrolls totaled about \$100,000.

By 1845 the value of the Sacramento Valley was beginning to be widely appreciated. On the west side of the river and somewhat to the north of *Rancho Chico*, William C. Moon took up a grant of several thousand acres, above Thomas Creek and near modern Henleyville and Paskenta. Moon was not only a sheepman but his nephew, Arch Moon, continued the business. His niece became the wife of J. M. Howell, one of the largest operators and chief promoters of sheep in the Red Bluff district after the war.

Another famous land grant of 1845 was that of the Llano Seco, south of Chico. It originally was awarded to Sebastian Kayser on October 4, 1845, by Governor Pio Pico, but in 1863 it was taken over on a mortgage by John Parrott.<sup>22</sup> The original grant bordered the river seven miles and totaled 18,710 acres. Re-surveys and small sales finally reduced it to four square leagues, 17,767 acres. The maximum flock of sheep on the place included seventy-three hundred breeding ewes. Parrott's son was uninterested in agriculture, so the husbands of his six daughters formed the Parrott Investment Company in 1906. Under the management of Hugh C. Baber it has proved one of the most efficient and up-to-date sheep and cattle establishments in northern California.

The counties of the Upper Sacramento Valley that became important in the sheep industry were, from south to north: Solano, Yolo, Colusa, Sutter, Yuba,

Butte, Glenn, and Tehama. As the valley narrowed, the flocks pushed up the tributary streams that drained into the River, both from the Sierras and Coast range. In general, sheep settlement progressed from south to north.

One of the first flocks to be established during the early American occupation came to Solano County with Julian B. Hoyt. Reaching California by way of the Horn in 1852, he took up land on a Spanish grant near Fairfield, but was never able to perfect his title. Hence he acquired patented land in the Montezuma Hills during the late fifties. He stocked this land with "native" California ewes. These thrived so well that in 1860 he brought out from Vermont a consignment of purebred Merino ewes via the Isthmus of Panama. At the California State Fair in 1861 he showed most of these sheep and won a silver goblet for the first prize fleece of the show.

In 1872 he visited England and imported one hundred head of Shropshires. Both flocks were bred pure, and in addition he built up a crossbred flock from which he sold range rams that were very popular all through the Sacramento Valley. His son, Julian B. Hoyt II, continued both breeds, but his grandson<sup>23</sup> switched to the Corriedale breed

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<sup>22</sup> W. Hugh Baber, Chico, California. Interview with author February 16, 1940. Parrott had been United States commercial agent at Mazatlan in 1844-45. He had shipped a cargo worth \$120,000 to Mazatlan via the English brig "Star of the West," in which he owned an interest. Since the customs duty at Mazatlan would have equaled the inventory value of his cargo, he ordered the ship to Monterey where it went on the Carmel Rocks just inside the harbor. He was able to salvage most of the cargo, and from his profits purchased the Kayser Grant near Chico. Here the flocks and herds now owned by the Parrott Investment Company were founded.

<sup>23</sup> R. C. Hoyt, Bird's Landing, California, former President, National Corriedale Sheep Breeders' Association. Interview with W. P. Wing, November 10, 1939.

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and discontinued sheep operations just before World War II.

Yolo County was early distinguished for its quality flocks. The pioneer American sheepman was William Gaston Hunt, a North Carolinian who came to California in 1849. In 1851 he took up livestock in the county, and from 1853 to 1863 was running between ten and fifteen thousand sheep. In the latter year he drove one band into Oregon and another into southern California.<sup>24</sup>

From the standpoint of good blood, the two great flocks of Yolo County were those of J. H. Glide and Francis Bullard. Glide was born in Somersetshire, England, in 1845, and crossed the plains to the placers in a company of forty-two families. Instead of prospecting for gold he entered the livestock business. By 1860 he had established himself as a butcher, raising livestock on the side—both sheep and cattle. About 1860 he purchased his first farm near Davis, to which he added gradually until he had twenty-eight hundred acres. He specialized in French Merinos, one particular importation costing him an average of three hundred dollars per head. Glide exported sheep to most of the western states, South America, Africa, and Australia.<sup>25</sup>

Francis Bullard purchased a small holding in Yolo County in 1860, but finally owned about two thousand acres of land four miles southwest of Woodland. With his sons he handled both American and French Merinos. Eventually they had one of the best flocks of Rambouilletts in the entire country, were highly successful in the showyard, and sold sheep all over the West.

In Colusa, the next county north, John Boggs in the sixties bought six thousand acres from the Thomas Larkin grant, a few miles from Princeton, and was soon operating a large flock. On the east side of Feather River, in Yuba County, Isaac

N. Brock arrived in 1860 and finally owned about three thousand acres, where he raised Merino sheep of very high quality. James Robinson Talbot was a pioneer in both Sutter and Colusa counties and accumulated holdings of 14,500 acres with twelve to fourteen thousand head of sheep.<sup>26</sup>

One of the most courageous northern Californians was George W. Gridley,<sup>27</sup> who settled near the present town of Gridley in Butte County. He tried to drive both cattle and sheep across the plains in 1850 but every animal was either captured or destroyed by the Indians. He immediately engaged in the stock business and cleared ten thousand dollars with which he again tried to drive sheep across the plains. Once more misfortune struck him, for out of three thousand head purchased in Illinois he arrived with only six hundred head. Yet at the peak of his operations he owned over twenty thousand sheep and thirty thousand acres of land.

Other pioneers of Butte County included Nathaniel H. Thomasson who established himself in Chico in 1853; H. Lewis Sanders, who located near Wyandotte in 1860; and Henry C. Compton<sup>28</sup> who operated in Butte, Modoc, and Colusa counties from 1870 forward. Compton was a Canadian who first took up land near Chico but was unable to confirm title. In the winter of 1872-73 he had his sheep on Pitt River in Modoc County, when an Indian herder warned him of Captain Jack's uprising and the opening of the Modoc

<sup>24</sup> James N. Quinn, *History of the State of California*, 449.

<sup>25</sup> *Ibid.*, 411.

<sup>26</sup> George C. Mansfield, *History of Butte County*, 617-18.

<sup>27</sup> Quinn, *History of State of California*, 654, 1587, 1383.

<sup>28</sup> Mrs. H. C. Compton, Chico, California. Interview with author, February 17, 1940.

War in the Lava Beds. Hurrying his family back to Chico, he returned to the Modoc region to care for his flock. On selling them he purchased a home site two miles south of Chico, and then added about two thousand acres in Colusa County. This was the foundation of the long-time extensive Compton sheep interests.

The earliest sheep operation in Glenn County was at the Garnett Ranch near Willows, founded in 1853. This establishment ran ten to twelve thousand sheep, and at its maximum exceeded fifteen thousand. In the same county, Rufus G. Burrows established bands in 1857 southeast of Newville, where he raised as many as twenty thousand head when he was operating at his maximum. Milton French came to Glenn County the next year and had a flock of twenty-five thousand head, while Hugh A. Logan operated in Glenn, Tehama, and Mendocino counties with a flock of six thousand sheep. Perhaps the most famous of the Glenn County sheepmen was Irving W. Brownell, who in 1859 bought eighty acres of land along Stony Creek in the northern part of the county. Growing with the country, he had thirteen thousand acres by 1900 on both sides of the creek, running fourteen miles north and west of Orland. From the start he used purebred Merinos and soon developed one of the largest purebred flocks in the Sacramento Valley. At his death the flock was carried on by his sons who were particularly successful in the exhibition of fine Merino fleeces.<sup>29</sup>

Tehama County had many of the most famous of the Sacramento Valley operators, including Cone and Kimball, Joseph Cone, Howell Brothers, Leo L. McCoy, Grant and Sardis Wilcox, and Leland Stanford. Major G. G. Kimball came to Red Bluff in 1857 to establish a partnership in the sheep business with

General Reddington, and in 1870 also formed one with J. C. Tyler. In 1876 he took Joseph Cone as partner in another enterprise, and Cone and Kimball obtained title during the eighties to about sixty thousand acres of range land. Cone formed a partnership also with a man named Ward, and they ran from twelve thousand to twenty-five thousand head. Similar numbers were handled by Cone and Kimball and by Joseph Cone on his own property.<sup>30</sup>

The Howell Brothers operated near Henleyville, James M. Howell having come from Missouri in 1859 and located this ranch in 1862.<sup>31</sup> His sheep were ranged between Red Bank and Cottonwood Creek in the north central part of the county, and throughout the eighties and nineties he did much to improve the stock of the district by the importation of Merinos.<sup>32</sup> The Howell and Cone flocks became great sources of trail bands throughout the eighties.

The Nestor of northern California sheepmen was Leo L. McCoy, who came to the Red Bluff district in 1872. He first purchased a half interest in a band owned by the Howells, making a very small down payment. The hard winter of 1872-73 brought a deep snow, and without supplemental feed he suffered severe losses. He tried to turn the sheep back to T. Newton Howell—about one thousand head—to settle the debt of forty-eight hundred dollars, but Howell encouraged him to go on and loaned him more money. McCoy located on the east side of the Sacramento River and ultimately owned about twenty-five thousand acres in one ranch on Antelope

<sup>29</sup> Quinn, *History of State of California*, 1135, 961, 1007, 1265, 937.

<sup>30</sup> Fred Ellenwood, Red Bluff, California. Interview with author, February 18, 1940.

<sup>31</sup> Quinn, *History of State of California*, 1416.

<sup>32</sup> R. R. Howell, Red Bluff, California. Letters to author, August 1, 1941, and January 26, 1942.

and South Payne's creeks. His summer range was established in Lassen County. By 1880 McCoy was also operating large tracts on the west side of the river near Henleyville and Paskenta on the Moon Grant, and also on Coyote Creek near Proberta. His flock usually contained fifteen to twenty-five thousand sheep, and he was northern California's pioneer in building his own sheep shearing sheds and steam dipping plants. In 1912 McCoy sold out his interests to Fred Ellenwood, former president of the California Wool Growers' Association and the National Wool Growers' Association.<sup>33</sup>

The eighties were boom days in Tehama County. On the east side of the river, and as far north as Payne's Creek, was the McCoy outfit. Just below it was the Cone ranch, then the Cone and Ward ranch, and then the Stanford ranch. Senator Leland Stanford owned about fifty-five thousand acres in the southern end of the county, and had a flock of approximately fifteen thousand sheep. This was increased to about twenty thousand by his foreman, D. B. Lyon, about the turn of the century. On the west side of the river were the Finnels, with ten thousand sheep which they grazed southwest of Red Bluff and somewhat south of the Howell Brothers' holdings. Still farther south was the Albert Gallatin outfit of fifteen to twenty thousand ewes.<sup>34</sup>

Operators in the Sacramento Valley drove to Washoe and Humboldt counties in Nevada for summer grazing throughout the seventies, but the settlement of the east side of the valley restricted this type of trailing. The entire movement stopped about 1905 when the Forest Service denied permission to cross the lands under its jurisdiction.

The story of sheep in northern California was not the story of large operators, however. Hundreds of sheepmen

were engaged in the business from 1860 onward, and collectively they formed the biggest reservoir of production in the whole United States. In the two decades preceding 1880 they brought in a mass of purebred rams that revolutionized the Spanish type prevailing there and provided animals on which the modern sheep industry of Montana, Idaho, Nevada, and western Utah and Arizona was based. The extent of the demand is shown by Gordon, for in 1880 about 180,000 sheep were shipped or trailed out of California for stocking purposes.<sup>35</sup>

#### ISLAND SHEEP EMPIRES

Off the coast of southern California are a number of islands—San Clemente, Santa Catalina, San Nicolas, Santa Barbara, Santa Cruz, Santa Rosa, and San Miguel—which have provided shelter for sheep ranches since Spanish days. Isolated from the mainland and free from predatory animals, they seemed a sheepman's paradise. Only the big drouths interfered, and on the average they were less frequent and less severe off-coast than on the mainland. Most of the islands were discovered in 1540 by Cabrillo. San Miguel was especially convenient for Spanish navigators, although livestock were not established until San Diego was settled. In 1793 Vancouver reported sheep on San Clemente, but it was nearly 1850 before all of these islands were stocked.

When Harris Newmark went to Los Angeles in 1856 the mutton consumed in the village came largely from Santa Cruz Island, although small quantities were brought in from San Clemente and

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<sup>33</sup> Ellenwood, Interview, February 18, 1940.

<sup>34</sup> *Ibid.*

<sup>35</sup> Clarence W. Gordon, "Report on Cattle, Sheep, and Swine," *Tenth United States Census*, Vol. 3 (1880) :1045.

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Santa Catalina. On the latter island Newmark recorded<sup>36</sup> the existence of a flock of eight to ten thousand head in which Dr. Oscar Macy held an interest, while L. Harris also had extensive flocks. These sheep ran wild, semi-annual visits being made for shearing, packing, and shipping wool. Each season the early grass on the island was a variety of "foxtail." Its barbed heads caught in the fleece and caused festering sores unless the sheep were shorn after the heads matured and had become entangled in the fleece.

For years Santa Catalina was the property of Don José María Covarrubias, one of the most affluent of the old Spanish *rancheros*. Between 1864 and 1872 the island was sold to James Lick,<sup>37</sup> and in 1887 it was transferred to George R. Shatto for two hundred thousand dollars. During the eighties the island was grazed by a flock of fifteen thousand head, and when Shatto sold it to Banning Brothers,<sup>38</sup> in 1892, the latter permitted the numbers to increase. About 1910 the Bannings leased the island and flock for a ten-year period to John A. Maurer. The latter was the last sheep operator on the island. In 1919 it was sold to William Wrigley, Jr. for amusement purposes.

About 1912 Maurer decided to clear the island of the wild stock and install Merinos. The sheep were sold at \$1.50 per head to Degan Brothers, livestock traders operating on the San Francisco and eastern markets. The Degans' contract included the responsibility of collecting and re-selling them. As assistants they secured the services of David and Ed Staunton of the Union Sheep Company. The animals were very wild and many of the fleeces were ten to twelve inches long, due to irregular shearing. Some of these unusual fleeces were preserved for many years by J. G. Taylor of Lovelock, Nevada.

The Degans purchased a half mile of cheese cloth a yard wide and used it to construct a fence with wings through which to collect the sheep. A large number of bucks were so wild that they would break for the hills when pressed

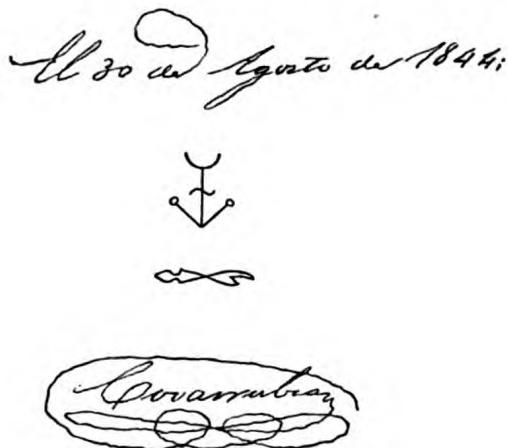


FIG. 47—Early sheep and cattle brand of J. M. Covarrubias, traced from the Santa Barbara brand book. (Courtesy Senator James J. Hollister.)

too closely and they had to be killed in order to control the flocks. Ed Staunton, an expert marksman, spent his entire time picking off the unruly ones. Finally they were all in the corral. Part of them were shorn, the pelts of the dead sheep were collected, and the poorer lambs marketed as canners. Most flockmasters feared to purchase the remainder for they knew that when the sheep got into the sagebrush they would evade the herders. The flock was ultimately sold, however, but the wild sheep proved so disruptive of the bands to which they were introduced that they finally had to be slaughtered in San Francisco.

Maurer developed a good commercial

<sup>36</sup> Newmark, *Sixty Years in Southern California*, 216.

<sup>37</sup> James Lick provided the original funds for the well-known Lick Observatory.

<sup>38</sup> Conner, *The Romance of the Ranchos*, 39-42.

flock, crossing Hampshire rams on the Merino ewes and arranging the breeding so that the lamb crop of some twenty thousand head arrived in November and early December. About April first his lambs reached weights of approximately seventy-five pounds, and were shipped by barge (about fifteen hundred head to the load) to the mainland. The lamb crop of 1919 was reported to be 100 per cent,<sup>39</sup> the average weight at Los Angeles seventy-six pounds, and the average price seventeen dollars per hundredweight.

Santa Rosa Island is about thirty miles south of the city of Santa Barbara, is twenty-four miles long and sixteen wide, and totals about seven thousand acres. In the eighties it was owned by Alexander P. More of Boston, and the flock numbered eighty thousand head at its peak. The island was divided into quarters by fences placed at right angles. These crossed its entire diameters, so the bands did not require herders. Four men were employed regularly to keep the ranch in order and to supervise the sheep, but each spring fifty or more shearers were imported who worked forty to fifty days. In June, 1887, More clipped 1,014 sacks of wool totaling 415,740 pounds. At 27½ cents a pound he received a total, including lower priced black fleeces and tags, of \$112,350 and a clear margin of more than eighty thousand dollars.

About two hundred or more trained goats were used to control the sheep, and no sheep dogs were permitted on the island. Supplies came from San Francisco. Twice each year the little schooner Santa Rosa made round trips to that port for clothing, provisions, lumber, hardware, and other necessities,<sup>40</sup> and delivered the wool clip on the northbound trip. Toward the end of the eighties the island was rented for \$140,000 annually to a brother, Lawrence

More. But about the time of the first World War it was purchased by the Vail Company of Los Angeles, and has since been devoted to cattle.

Santa Cruz Island, over the years, averaged even larger flocks than Santa Rosa. Steamers en route between San Francisco, Los Angeles, and San Diego made it a regular stop to transport sheep or sheep products.<sup>41</sup> In 1839 the island was granted by the Government of Mexico to Captain Andrés Castillero, reputed discoverer of the New Almaden quicksilver mines. From him it was acquired in the early fifties by the British firm of Barron, Forbes, and Company of Tepic, Mexico. In 1865 Justinian Caire was made manager and four years later, February 22, 1869, he organized the Santa Cruz Island Company, to which the title was transferred. There originally were ten incorporators<sup>42</sup> in this company, but its stock was finally bought by Caire, who became the sole owner.

Santa Cruz is the second largest of the channel group, and contains a little over sixty-two thousand acres.

Justinian Caire, Sr., must have been a man of great foresight. . . . He was one of the pioneers in soil conservation which is evidenced by wonderful rock work consisting of dry walls across the stream beds, the bulk of which is in excellent preservation. His buildings were of the best, consisting of rock, and bricks that were made on the island. His planting of trees for future generations showed a great deal of foresight.<sup>43</sup>

<sup>39</sup> *Drovers' Telegram*, Kansas City, Missouri, May 17, 1920.

<sup>40</sup> William Thayer, *Marvels of the New West*, 236-37.

<sup>41</sup> Newmark, *Sixty Years in Southern California*, 216.

<sup>42</sup> Frederic F. Caire, San Francisco, California. Letters to author December 19, 1939, and March 18, 1940. Also interview with author December 14, 1939. The ten incorporators were Pablo Baca, Justinian Caire, Giovanni Battista Cerruti, Thomas J. Gallagher, Adrien Gensoul, Nicolas Larco, Gustave Mahe, Camillo Martin, I. Lemman Meyer, and Alexander Weil. In the eighties and early nineties Alexander P. More held an important interest, but was bought out by Caire.

<sup>43</sup> Edwin L. Stanton, Long Beach, California. Letter to author December 18, 1939.

Prior to Caire's death in 1897, the property was conveyed to his wife and children, together with a flock totaling between forty-five and fifty thousand head.<sup>44</sup> In 1894, F. L. Kellog, the county clerk of Santa Barbara, listed the local sheepmen. He noted that the Santa Cruz Island Company owned fifteen thousand head on the island while the estate of A. P. More owned thirty-five thousand. Kellog<sup>45</sup> wrote that "the above figures were mostly taken from the assessment rolls and are, presumably, a little under the true facts." Under Caire's management

... the sheep were never herded, but roamed the various island ranges, the rams being at all times with the flocks. The number of sheep on each range was determined by the nature of the terrain and the amount of feed available. . . . Shearing was done in the spring and fall, when the flocks were rounded up by riders and driven to the nearest shearing-shed. In those early decades as many as thirty-five to forty thousand sheep were shorn—by hand, of course. For the past thirty-five to forty years, the shearing season has been a period of some forty or fifty days in the spring only (in contrast to the contemporary Southern California custom of shearing twice annually). The flocks were free from all disease. Anthrax, scabies, and foot-and-mouth disease were unknown at Santa Cruz. When new sheep were brought to the island, they were first quarantined for observation on the mainland and properly disinfected. Upon arrival . . . they were kept at quarantine for a sufficient interval, dipped and disinfected several times before being allowed to mix with the flocks. The Merino breed we found, by experience, to be the best adapted to the island climate and rugged topography.<sup>46</sup>

Sheep ready for market were shipped by the Company's schooner "Santa Cruz" to the mainland, or were loaded on coast steamers at the island wharf in Prisoners' Harbor, and sent directly to San Francisco. Before the harbor at Santa Barbara was developed the sheep cargoes were lightered ashore, while cattle were cast overboard to swim to land. After the livestock market was established in Los Angeles, the sheep were shipped by vessel via San Pedro, or were unloaded at

Santa Barbara and sent by rail or truck to Los Angeles. Throughout the years, wool left the island in the same manner as the sheep, but it was forwarded to Boston or Philadelphia.

Predators (other than vagrant fishermen or small scale thieves) were never a problem. Crows occasionally gave some trouble but they were gradually poisoned, and eagles seldom proved bothersome. A small variety of red fox inhabited the island but it never attacked the live lambs. There were no goats on the island, but some excellent sheep dogs were used. Neither were absolutely necessary under the system of *potreros* and *corridas* used.<sup>47</sup> Frederic Caire wrote:

Our most serious problem with regard to the safety of the sheep was protecting them against the raids of fishermen who landed in parties of twelve to fifteen armed men to kill and carry off fat lambs, bootlegging the carcasses in San Pedro and other coastal ports. The number of sheep stolen was considerable, owing to the difficulty of catching the thieves at their work. Although riders were employed to patrol the ranges, the size and geography of the island favored this type of law breakers; its shoreline is broken and its many canyons are deep and wooded. When caught, thieves were apprehended and brought to justice. Occasionally also, vandal sportsmen practiced their marksmanship on grazing sheep. Such persons, however, were not representative of the larger number of sportsmen who enjoy sailing in the Channel waters, and who called at Santa Cruz.<sup>48</sup>

San Clemente had flocks of ten to twelve thousand head owned by the Blairs and Lewis Penwell, but in 1935 it was taken over by the United States Navy. On San Nicolas, the Vails ran a small flock of sheep under Robert Brooks,

<sup>44</sup> Caire, Letter, March 19, 1940.

<sup>45</sup> F. L. Kellog, *American Shepherd's Yearbook*, November, 1894.

<sup>46</sup> Caire, Letter, December 19, 1939.

<sup>47</sup> Ambrose Gherini, San Francisco, California. Letter to author, December 5, 1939. *Potreros* are enclosed fields, usually large, and *corridas* are round-ups.

<sup>48</sup> Caire, Letter, December 19, 1939.

and on San Miguel they also ran a small flock. From one of these latter islands a celebrated law case developed. Evidence was offered to the effect that an employe had seen several men in a boat apparently carrying a sheep away from the island; that this employe was unable to get down to the water in time to intercept them; that he discharged his rifle after the boat, when it was a short distance off-shore, having previously warned the men to stop; and that he fired again when they disregarded his warning, resulting in the death of one of the alleged thieves. Because the sheep did not appear at the mainland, and because there were no corroboratory witnesses who saw the shooting, the employe was found guilty of murder in the second degree. Situations like this seldom reached such extremities, and most sheep losses on the islands resulted from slyness rather than boldness.

#### OREGON

After Oregon became a provisional territory in 1845, sheep development followed two divergent patterns. In the earlier settled valleys, such as the Willamette, Umpqua, and Rogue, sheep husbandry was of the general farm type. But to the east of the mountains and in the southern part of the state the range system was adopted. Mutton breeds became prominent where farm flocks were operated, but the Merino held the eastern section. Here the conditions of other western range country were duplicated, and breeding bands numbered fifteen to twenty-five hundred head.

Interest in quality ran high in the older settlements. The efforts of the Thompsons in 1853 to introduce purebred animals were soon emulated. The Oregon Stock Importing Company was organized in 1855 with members from

Benton and Marion counties. Plans for introducing purebreds were formed and the officers elected were: President, Wayman St. Clair, Benton County; Vice President, Ralph C. Geer, Marion County; Secretary, T. W. Davenport, Marion County; Treasurer, G. G. Hovey, Benton County; and Importing Agent, John P. Welch, Lane County.

It was announced that a few purebred French Merino sheep would be introduced annually, but the pioneer farmers were not ready to support the plan. The corporation dissolved, but several of the officers and stockholders carried on as individuals. They used the imported animals, and a number of excellent flocks were developed in these counties during the late fifties and early sixties.<sup>49</sup> In 1858 Ralph C. Geer imported Southdowns from England and for a quarter of a century his flock dominated the Pacific Northwest in this breed.

An important incident occurred in 1857 when Martin Jesse made an unpremeditated purchase of some Australian Merinos. Returning by ship from the California gold mines, he overheard a call for a sheep sale aboard another vessel in San Francisco harbor. Learning that they were purebred Merinos, owned by J. H. Williams, United States Consul at Sydney, Australia, he went aboard.

The sheep had originated in the Camden Park flock of the MacArthur brothers in New South Wales. This flock was descended from that of King George III of England, at Kew. The senior MacArthur had procured a draft from it in 1804 which he had taken to Australia. In turn, King George had obtained his foundation animals from the Negretti flock belonging to the Marchioness del Camp di Alanzo in Spain, and had arranged its exportation only after

<sup>49</sup> Carey, *A General History of Oregon*, Vol. 2: 687, 690.



FIG. 48—Sheep near Haystack Butte, Montana, in the Lewis and Clark National Forest. (United States Forest Service.)



FIG. 49—Wyoming Mountain Valley Range on Z-T Ranch near Meeteetse. (Belden Photo.)

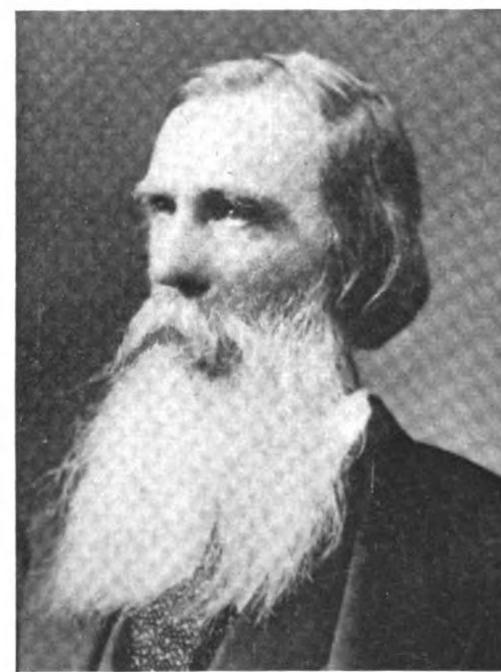


PANEL 50—(Above) Robert Taylor, Wyoming sheep king (pp. 327, 619).

(Above Left) George M. Miles, eastern Montana sheep pioneer (p. 298).

(Below Left) Percy Williamson, prominent eastern Montana wool grower (p. 298).

(Below) Judge William A. Carter, pioneer wool grower of western Wyoming. (Photo from Wyoming Historical Society.)



express permission of the Spanish King.<sup>50</sup> Bad weather delayed the voyage from Sydney so that both feed and water were practically exhausted. During the last few days of the voyage each sheep had only a few swallows of water from a bottle in order to keep it alive.

Jesse purchased twenty head and transferred them to the ship on which he was traveling to Portland. They were finally landed at the farm of Coffin and Thompson at Dayton, Oregon, on the west side of the Willamette River, twenty-odd miles north of Salem.

In 1860, R. J. Jones and S. B. Rockwell brought forty-five head of Vermont Merinos into western Oregon. Jones and Rockwell were "mercantile" breeders: they were Addison County, Vermont, Merino men who maintained sales distribution in Oregon and California. They exercised a powerful influence on Coast husbandry. Other breeders operating similarly in Oregon were John D. Patterson, Jewett and Munson, Lane and Jewett, Severance and Peet, and Peter Saxe and Sons. Registry certificates guaranteeing blood lines were nearly impossible. John Minto received a bill of sale for descendants of sheep which Jones and Rockwell imported. The bill, serving as evidence of the blood, read as follows:

March 31, 1861

We have this day sold to Joseph Holman and J. L. Parrish, one French Merino buck, \$500; four breeding ewes at \$275—\$1,100; two young ewes (not in lamb), \$100; total \$1,700. Received payment in cash and notes.

(Signed) S. B. Rockwell (Signed) R. J. Jones<sup>51</sup>

This certificate failed to identify individual animals, but made certain that French Merino blood was introduced to the Holman and Parrish flock. J. L. Parrish ultimately became one of Oregon's leading breeders. Other important purebred sheepmen of the late sixties were John Minto, and the Hon. Thomas L. Davidson of Marion County.

#### A SPECULATIVE DISASTER

Just before the Civil War the industry began to develop on the Clatsop plains in the northwestern part of the state. Colonel James Taylor, Major Rhinearson, and Robert S. McEwen exercised a powerful influence here, while the missionary, Dr. W. H. Gray, met disaster. In 1852 he "mortgaged his ranch to the hilt" and sailed to the East Coast via San Francisco and Panama, to buy Merino sheep. The following spring he obtained four hundred head in Ohio and crossed the plains via Independence, the Arkansas River, the South Platte, Fort Laramie, and the Oregon Trail to Dr. Whitman's mission. His drives averaged twenty miles daily.

At The Dalles he purchased a scow, sixteen by sixty feet, on which he put the 360 head still remaining. They drifted downstream to the mouth of the Willamette and were towed to Astoria by a steamboat. Here Gray erected a sail and made for Young's Bay, but as he was tying up at the shore a sudden squall parted the line. The scow drifted against Chinook Point, where the high waves dashed overside and drowned every one of his sheep. Because of their death he could not meet the mortgage and lost his farm—a most tragic denouement to a very tedious venture.<sup>52</sup> A margin of a moment would have saved the entire undertaking.

#### OREGON SWINGS TO MUTTON

Oregon was admitted to the Union in 1859, and the sixties saw a rapid introduction of sheep—especially the mutton breeds. The mid-war demand priced

<sup>50</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 977–78.

<sup>51</sup> *Ibid.*, 978.

<sup>52</sup> Lomax, *Pioneer Woolen Mills in Oregon*, quotes Mrs. Sarah Gray Abernethy, 76–77.

cotton about twenty cents per pound above wool and there was no advantage for Merino over coarser fleeces. From 1853 until the beginning of the Civil War, prices for different grades of wool had been the same—usually about ten cents per pound. When war demand inflated the price to sixty-five or seventy cents, uniform levels still prevailed. Furthermore, the number of farms had quadrupled, and the acreage and value quintupled between 1850 and 1860.

These factors combined to create a market for mutton rams, and the success of Geer's Southdowns in Marion County impelled John Cogswell to bring Hampshires and Oxfords to Lane County. Marion County also gained a fine mutton flock when Archibald McKinlay retired from the Hudson's Bay Company and purchased a number of imported English sheep for his farm. A strong demand developed contemporaneously for Cotswolds and Leicesters, both from the East and from Australia.

Two of Oregon's great flocks were established as the sixties closed, that of B. E. Stewart and Sons of North Yamhill with Cotswolds, and that of Simeon G. Reed of the Oregon Steam Navigation Company, who later joined with Judge W. S. Ladd of Portland to establish Cotswold, Leicester, and finally Shropshire flocks. James Withycombe, long-time director of the Oregon Agricultural Experiment Station and governor of the state in his final years, was an ardent promoter of the Down breeds. French Merinos also became widely distributed throughout the Willamette Valley.

#### EASTERN OREGON

Wheat in the Willamette Valley during the Civil War tended to crowd some of the sheepmen out across the Columbia into Washington or over the mountains into eastern Oregon. So much grazing land was plowed that numbers of hardy

spirits moved into the country south of Walla Walla and The Dalles. The first of these were stockmen interested in cattle and sheep. Earliest attempts at farming were confined to the valleys, although by 1864 Edward Mahn sowed wheat successfully on the hill summits along Fifteen-Mile Creek in Wasco County.<sup>53</sup> It was 1875, however, before this type of farming became general enough to restrict either sheep or cattle raising.

The region between the John Day and Deschutes Rivers (modern Sherman County) attracted several cattlemen during the Civil War, but John Harrington brought the first sheep to it in 1872. The same season also marked the advent of "French Pete," who placed a band of sheep on the "Jack-Knife." In 1879, J. H. Smith established several bands, after spending three years in preparation,<sup>54</sup> and in 1882 George L. Doyle<sup>55</sup> was still able to state that the great prairie between the two rivers was an almost unbroken expanse of grass; "the stockman's Paradise where vast herds of horses, cattle, and sheep grazed to their knees in bunch grass—one of the finest and most succulent grasses that grows."

Farther up the John Day River, in present Grant County, Eli Casey Officer had established headquarters in 1862 not far from modern Dayville. By 1865 he was marketing muttons in the Idaho gold fields. This was not an easy task as brushes with the Indians were frequent. His diary reports the following incident:

*June 12th. Drove to the Malheur. Cat (his horse) bucked through the Creek and threw me off. Mosquitoes very bad. The Indians fired on us at sunset, wounding Clock through the bowels. We fought until dark and then caught two of the horses and went back to Summit*

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<sup>53</sup> E. A. Shaver, R. P. Rose, R. F. Steale, and A. E. Adams, *History of Central Oregon*, 118.

<sup>54</sup> *Ibid.*, 429.

<sup>55</sup> *Ibid.*, 431.

Prairie where we found York and Co. Thorp took Clock to Tool House the next morning. I stopped with York to go back to camp. . . .

*June 14th.* York drove down to the Malheur. We found the sheep, but everything in camp gone. Camped at Flag Prairie.<sup>56</sup>

This band was finally sold at Centerville, Idaho, on the Boise River.

During the summer of 1868 the first sheep went into the Ochoco Valley near modern Prineville. E. Barnes, E. Johnson, and W. H. Marks each introduced a band.<sup>57</sup>

These sheep had the doubtful honor of having the first case of scab in the settlement. . . . We thought it was the mange . . . and we lost all our wool and nearly all our sheep before we learned what ailed them. Greasing the measly things with bacon rind did not cure them and some of us retired from the business in disgust. Why, the scab is a native of this section! I have seen coyotes perfectly naked with it; the rim rocks had it; the sage brush had it; it was in the grass, in the rocks, in the air; our sheep caught it and had it bad.<sup>58</sup>

Mines were discovered in Baker County in 1862, and one of the first flock owners to establish there was David S. Love, who took three hundred sheep and fifty cattle into Eagle Valley in 1865. Jeannette Love Easterbrook writes:

My brothers and I had to herd them and we made such a poor job of it that he just turned them in the hills in the south end of the Valley. When he wanted to butcher any, he put me on a horse and I had to hunt them. Sometimes it would be two days before they were found. He sold butter, eggs, and mutton in Pine Valley. We went to Lane County, visiting through the winter of 1866-67, and when we got back all of the sheep were gone. He had butchered them all. If he sold any wool it was to the neighbors. . . . It was not until after '76 that . . . he and his oldest son, Walter S. Love, bought sheep again. They brought their sheep the second time to Baker Valley—some were so old they had to put them on sleds to get them to the farm. They sent east for their bucks, intending to raise Merinos. I think that they started with about five hundred sheep.<sup>59</sup>

These ewes were purebred Delaines that Jasper Mitchell had had on feed grounds, but the feed had been short and some of the ewes were too weak to make the trip on foot.<sup>60</sup> The original

stock of these Delaines had come from Ohio.

Another early Baker County sheepman was W. H. Colton, who handled a flock in the Sparta country prior to 1870.<sup>61</sup> Contemporaneous with Colton were Ples J. Brown, P. R. Pritchard, Pat Comansky, and "Uncle Jimmy" Taylor, from whom Colton got his foundation flock. A. B. Swift settled on Powder River in 1868 or 1869 and became a well known dealer in sheep in addition to being a grower.

Three outfits were particularly successful west of the Blue Mountains and developed large flocks and tremendous ranges—Charles Cunningham,<sup>62</sup> the Baldwin Sheep and Land Company,<sup>63</sup> and A. J. and E. B. Dufur. Albaugh<sup>64</sup> reports that five flocks were founded about this same time which persisted in Umatilla County—Jacob Frazier with three thousand head; Jerry Despain with twenty-five hundred head; William Ross (also identified with the Cunningham Sheep Company) with three thousand head;

<sup>56</sup> Wayne C. Stewart, Dayville, Oregon. Letter to author, November 17, 1940, quoting the diary of his grandfather, Eli Casey Officer. Stewart's father married Officer's daughter and bought Officer's ranch in the early seventies. In 1888 they sheared thirty thousand sheep.

<sup>57</sup> Shaver, et al., *History of Central Oregon*, 705.

<sup>58</sup> *The News*, Prineville, Oregon, June 6, 1887.

<sup>59</sup> Mrs. Jeannette L. Easterbrook, Lake Grove, Oregon. Letter to Walter A. Holt, Secretary, Oregon Wool Growers' Association, Pendleton, Oregon, January 30, 1941.

<sup>60</sup> Ethel (Mrs. Clarence E.) Love, Keating, Oregon. Letter to Walter A. Holt, February 3, 1941. There are some minor discrepancies in dates between Mrs. Easterbrook's and Mrs. Love's letters covering the same details.

<sup>61</sup> J. H. Tucker, Research Assistant, Field Staff, Report in Historical Survey Works Progress Administration, Portland, Oregon.

<sup>62</sup> See Biographical Appendix, Charles Cunningham.

<sup>63</sup> See Biographical Appendix, Dr. D. M. Baldwin.

<sup>64</sup> J. E. Albaugh, *History of the Settlement and Development of Umatilla County*, undated MSS. in Umatilla County Library, Pendleton, Oregon, quotes Colonel J. Raley, pioneer.

Jacob, Eugene, and Laurie Rieth with five thousand head; and J. E. Smith with three thousand head. Some of these men began running their sheep into the Blue Mountains for summer range in 1868-72, although their size of flocks was small.

#### THE BANNOCK INDIAN WAR

Oregon sheepmen endured strenuous experiences during the Bannock Indian War of 1878. Chief Joseph's surrender in 1877 and the placing of the Nez Perce Indians on their reservation permitted the settlement of the northeast portion of the state, but Indian troubles were not overcome. After conducting many raids in Idaho, the Bannocks withdrew westward in the summer of 1878 to the John Day River. Crossing this stream a few miles west of Canyon City, they turned northwest toward the Umatilla Indian Reservation.

The chief of the Army scouts, Colonel Robbins of Boise, and his men came across a sheep corral a few miles west of the John Day River into which a large number of sheep had been driven. The Bannocks had built a large fire in the center of the corral, and after tying the hind legs of the sheep together had thrown them into the fire to burn to death. Most of the mature sheep were killed and their bodies left to decompose.<sup>65</sup> A few miles farther on the scouts came to a herd of Merino bucks that the Indians had caught. Each of these rams' forelegs were cut off at the knees and the poor animals left to suffer. The effort at torture made by the Indians seems incredible today, as simple slaughter would have been far more effective in forcing sheepmen to abandon the region.

One of the most respected settlers of Umatilla County, Charles Jewell, had a band of sheep on the range about thirty-five miles from Pendleton. He

learned of the Indian invasion, so procured five or six guns with which to arm his herders. On July 8, 1878, he reached a cabin near the range where his sheep were located. Seeing the owner nearby, Jewell dismounted to talk to him. Just as he started for the house he was struck by a volley of Indian bullets while his host was killed instantly. Seizing Jewell's horse and guns, the Indians retired, leaving him for dead.

After they departed, the wounded man crawled to the house, got a pair of blankets and a piece of board, and scribbled on the latter with a charred ember, "Charles Jewell—shot by Indians—is in the brush nearby—call me if you see this." Then he crawled to the road, left the board, and dragged the blankets to the brush, where he lay three days and nights without water, food or care for his wounds. On July 12 some travelers discovered his message and shouted his name. A faint response came from the brush and they took him into Pendleton. Although he received the best care available, the exposure had been too great and he died in a few days.<sup>66</sup>

One serious effect of the Bannock raids was the mixing of flocks which had to be abandoned during the attacks. Infestation with scab appeared in all flocks, and the sheepmen sustained great losses. The most effective treatment was a dip of boiling tobacco leaves, squeezing out the juice. This proved expensive, however, and many flockowners turned to proprietary dips. The lime-sulphur dip was also used widely because of its cheap price, and it really saved the industry. The pest was not overcome until 1900.<sup>67</sup>

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<sup>65</sup> John Hailey, *The History of Idaho*, 238.

<sup>66</sup> *Ibid.*, 241.

<sup>67</sup> Albaugh, *History of the Settlement and Development of Umatilla County*.

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## POWDER RIVER SHEEPMEN

Among the pioneers who reached their fullest development after the Bannock Wars should be mentioned Sam Kitter, J. W. Parker, Oscar Jacobson, James Walk, David and Miles Lee, John Travillion, Frank Bennett, and Timothy Quigley. Kitter ran his bands on Powder River above Haines. Parker had a small flock in the seventies, but in the early eighties started feeding wethers. He purchased a thousand wethers from A. B. Swift and finished them for sale to Lee and Blewett, famous trail operators, who were also contractors working on the Union Pacific Railway. Parker conducted similar feeding operations for several years, but also had a half interest in a band of sheep on Wolf Creek. This band was sold to James Walk about 1878.

After David Lee came to North Powder in 1881, he and Walk entered partnership but Lee soon joined with his brother Miles. About 1900 the two Lees moved their operations near Baker. Dave's son Chriss entered the partnership about 1911 and carried through a flock to the present, utilizing about thirty to forty thousand acres in the Lookout and Pedro Mountain country and in the James district. The flock consistently numbers about twelve thousand and he usually markets as many as fifty thousand lambs for himself and other growers.<sup>68</sup>

The maximum number of sheep in this region was handled about 1884, when the grass was luxuriant and there were a large number of farm flocks as well as range bands. By 1878 there were more than 150,000 head<sup>69</sup> and in 1888 there were about 200,000, as compared with approximately 100,000 at present.<sup>70</sup>

Storms were always a problem. In the winter of 1874-75 an eighteen-inch snowfall stayed on the ground for nearly six weeks. Feed became impossible to obtain. J. F. Adams, on Wild Horse

Creek (northeast of Pendleton), being short of hay and unable to buy any, bought all the grain in the Weston country and fed it to his sheep on a ranch where the town of Helix now stands.<sup>71</sup> During the winter of 1888-89 "nearly all the cattle and sheep of Umatilla County were lost. Some bands were wiped out entirely. Two . . . unfortunate men that winter were Donald Ross and a Mr. Burnham. They had their flocks between Pilot Rock and Butter Creek, and were caught without sufficient feed to winter them."<sup>72</sup>

## THE WALLOWA COUNTRY

The first settlement in the Lower Grande Ronde Valley and the Wallowa country was in the winter of 1868-69. Considerable difficulty developed with the Indians, and it was not until the late seventies that livestock was introduced. Cattle preceded sheep.<sup>73</sup> During the early eighties Samuel and Aaron Wade, and Jacob Sturgill brought the first flocks of sheep to the Wallowa district. In 1884 a French sheepman, Peter Beaudoin, introduced a large flock that ultimately contained thirty thousand ewes. Early in the nineties Leonard Johnson, a native son of the Wallowa country, started in the sheep business. In 1894 Jay Dobbin drove his bands over from Union, where he had located in 1889.

From the standpoint of size Johnson became the principal operator. He was financing six different outfits, managed

<sup>68</sup> *The Record-Courier*, Baker, Oregon, January 9, 1936.

<sup>69</sup> Albaugh, *History of Settlement and Development of Umatilla County*, quotes Purl Bowman.

<sup>70</sup> *The Record-Courier*, January 9, 1936.

<sup>71</sup> Albaugh, *History of Settlement and Development of Umatilla County*.

<sup>72</sup> *Ibid.*, quotes Robert N. Adams.

<sup>73</sup> Jay Dobbin, Enterprise, Oregon. Interview with author, Spokane, Washington, January 21, 1941.

by brothers and friends, totaling around two hundred thousand head at the peak. Dobbin was the pioneer of the group in using the French Merino, getting the 1889 crop of ram lambs from "Old" Frank Pedro, who had gone to California in 1888 and purchased French Merinos from J. H. Glide in Yolo County. Dobbin, Johnson, and Beaudoin all used Ram-bouillet blood consistently throughout their operations. Dobbin was also a pioneer in taking his bands into the rough and rugged Snake River Valley near Hell's Canyon along the Oregon-Washington-Idaho boundary, first grazing there in 1894. The steep canyons, three to five thousand feet deep, make this range more difficult to utilize than any other in the whole United States.

#### SEVERE WINTERS

The eastern slopes from the Cascades and the foothill country were always desirable for sheep, although along the Columbia River the winters were often severe. The season of 1860-61 was particularly difficult, but not many settlers were in the country. When the bad winter of 1880-81 struck, numerous stockmen were seriously affected. A newspaper in The Dalles wrote:

Since the beginning of December to the present (mid-February), the loss of sheep has been heavy in this section. The losses are as follows: William Lewis, 1,500 out of 3,000; J. Curtis, 1,000 out of 2,000; J. Abbot, 400 out of 3,500; Jerry Young, 1,000 out of 2,500; J. Kelly, 220 out of 300.<sup>74</sup>

The winter was especially severe along the Columbia, but from Antelope (seventy miles southeast of The Dalles) to Canyon City (a distance of a hundred thirty miles) it was not so intense. Contrastingly, in Hay Creek 10,000 out of 18,000 perished, while in Lone Rock, W. H. Colwell lost only 175 head out of 8,600. Around Cross Hollow 15 per cent of the sheep and cattle died. In summary, the Wasco County Assessor<sup>75</sup> listed

in September, 1881, only 98,842 sheep as against 280,000 the previous year—approximately a two-third loss.

The next winter was a bad one in Gilliam County, to the east and north of the John Day River, and was known as the "double winter." From 90 to 95 per cent of the sheep in the county were lost, but by gathering and pulling the pelts, and marketing the wool, the flock-masters got enough money to carry through the summer.<sup>76</sup>

#### BAD MARKETS FOR WOOL

The hard times of the mid-nineties led to many unusual situations—none more so than the response to the low wool market in Crook County in the spring of 1894.

The citizens of the Hay Creek Community are grading and repairing their public roads with wool, preferring to utilize it in this way rather than haul it to The Dalles and lose money on it. Three loads were emptied into a mudhole near Hay Creek last week, and then covered with earth.<sup>77</sup>

It is not known when the traditional wool freight story originated, but it may have been at this time. The scene has been laid in many states, but Oregon's distance from the Boston wool market makes the tale more plausible. A grower shipped a trainload of wool to a Boston dealer during one of the bottom price periods and the proceeds of the sale failed to cover the freight. The dealer wired for additional cash, whereupon the grower replied collect: "Have no money. Can ship more wool."

#### BOOM DAYS OF EASTWARD DRIVES

The halcyon days of the sheep industry east of the Cascades occurred during the eighties and early nineties. All over

<sup>74</sup> *The Times*, The Dalles, Oregon, February 13, 1881.

<sup>75</sup> Shaver, et al., *History of Central Oregon*, 120.

<sup>76</sup> *Ibid.*, 561.

<sup>77</sup> *The Herald*, Antelope, Oregon, April 9, 1894.

eastern Oregon, flock drivers—headed for Kansas, Nebraska, and the Dakotas—were picking up tremendous bands of wethers which they trailed into those rapidly developing feeder districts. From 1888 to 1900 three to four hundred thousand sheep went out of this region annually in one of the greatest migratory livestock movements in history. During the latter part of the nineties, yearling ewes began to be included, and thousands of Oregon ewes were sent east to build up the flocks of Montana, Wyoming, and Colorado. They have been used almost continuously in Nevada and northern California for the same purpose.

#### SOUTHERN OREGON

Indian troubles delayed the establishment of flocks of sheep in southern Oregon. Until General Crook subjugated the Shoshone Indians in 1868 there were no sheep in Lake or Klamath counties. One of the earliest settlers was David R. Jones, who entered the region in 1867, but the first permanent sheepman was C. Hagerhorst who wintered his flocks in the Goose Lake Valley.<sup>78</sup> In 1871 Thomas H. Sherlock started herding sheep for Hagerhorst, and his brother, Charles E. Sherlock, arrived the same year. The next season a younger brother, Richard L. Sherlock, came and the three of them formed a partnership operating not far from Summer Lake. Richard Sherlock was probably the first stockman to harvest a crop of hay in the Silver Lake Valley. The pioneer wool grower in the Summer Lake Valley was William Harvey, who reached that country in 1872, while another pioneer was Dan Chandler who came to Lake County in the fall of 1875.

In the eighties there were two large outfits in southern Oregon—Miller and Lux and John David Edler. The former ran cattle in the north and handled most

of its sheep on the Nevada and California ranches. Yet in some of the Oregon country it was too severe to run cows and calves during the winter, and Henry Miller tried sheep for several years. Most of the latter's ranches were in Harney County and along the Malheur River. But in the upper reaches of the Silvies River, and at the Trout Creek Ranch, sheep seemed a possibility. Two snowy seasons caused Miller to go back to cattle and to utilize the difficult ranches for his horses.

"Dave" Edler was reputedly the largest sheep operator in Lake County in the early days, and came into the county in 1886.<sup>79</sup> At his peak he is reported to have run between forty and fifty thousand head.

Settlement in Klamath County was several years behind Lake County. When the Modoc War broke out in 1872, the white settlers in the county numbered between three and four hundred. They were in the Lost River Valley, the Tule Lake Valley, Langell's Valley, and on Link River, with one or two families on Sprague River. Quite a few sheep had been brought over the border from California into the Merrill country and eastward into Langell's Valley. Many of these flockowners were Irish, direct from the old country, who brought their customs, brogue, and traditions to the southern Oregon and northern California districts.

The actual move that precipitated the War at the Lava Beds was the attempt by Captain Jackson of the United States Army to return Captain Jack's band of Modocs to an Indian reservation where they could not get along with the Klamath Indians. This resulted in a battle

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<sup>78</sup> Shaver, *et al.*, *History of Central Oregon*, 817.

<sup>79</sup> Victor W. Johnson, County Agricultural Agent, Lakeview, Oregon. Letter to W. A. Holt, Pendleton, October 29, 1940.

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on November 29, 1872. A Modoc sub-chief named Hooke Jim utilized the occasion to raid nearby ranches and kill eighteen whites on that day and the succeeding one.

The worst depredation was committed at the ranch of William Boddy above Adams Point. On the afternoon of the twenty-ninth Mrs. Boddy saw their driverless mule team approaching headquarters. Calling her married daughter, Mrs. Schira, she caught, unhitched, and stabled the team, then started for the woods where the men had gone to work that morning. Soon they saw Indians a short distance away and found the stripped and mutilated body of Schira, then those of Boddy and his elder son, Rufus. The younger son had been herding the sheep below on the plain, but he could not be seen and his sheep were wandering unherded through the sage.

A mile below the Boddy ranch a man named Robert Alexander was also herding sheep and was killed. His body and that of young Boddy were discovered by soldiers a few days later.<sup>80</sup> Fortunately the women escaped, as did H. H. Bleecher who heard the battle and was ordered by the Indians to go home. Instead he escaped to California and a short time later returned to find his flock of twelve thousand sheep and herd of eight hundred cattle intact.

Even during the eighties there was still considerable difficulty in getting sheep through the Klamath country, due to the opposition of the Indians on the one hand and the cattlemen on the other. The leading operators of the eighties were O. T. McKendree, John Freeze, I. D. Applegate, Dennis O'Connor, J. P. Harter, the Whitney brothers, Jack and Pat McCarty (partners of McKendree), and D. B. Murphy. The chief sheep development in Klamath County<sup>81</sup> came after 1900—much of it about the time of the first World War.

Patrick O'Keefe developed a flock of about thirty thousand head, while flocks of ten to twelve thousand head were handled by E. M. and W. E. Hammond; Charles, Henry and John Cox; Richard and Dennis Lacey; Hugh and Dennis O'Connor; Michael O'Connor; George Yeager; David McAuliffe; Leo Sagehorn; and Jerry and Jack O'Connor. Patrick Brown, and James and Maurice O'Keefe, were also large operators of the period.

Much of the development of the sheep industry in this region had to wait until lambing sheds could be established, and years of bitter experience had to pass before most of the flockowners invested in the necessary equipment. Lambing now takes place in late February and early March. By April first, if the grass is far enough advanced, the bands are started for the spring grazing areas. Most of the animals in this section are first trailed into the lava beds or into the ranges of northern California. As the season advances, the sheep are worked toward the higher elevations.

#### WASHINGTON

Sheep were in Washington in the forties and fifties of the last century as a result of the energy of Dr. McLoughlin and his successor, Dr. Tolmie. Flocks also were developing in the vicinity of Fort Walla Walla in the eastern part of the territory, but the Whitman massacre of 1847 definitely postponed activity there. By the time that the 1850 Census was taken, the region now Washington had more sheep than the rest of Oregon—11,507 head out of 15,165.

In 1845 Colonel M. T. Simmons established a colony of Americans on

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<sup>80</sup> Shaver, et al., *History of Central Oregon*, 956.

<sup>81</sup> Ruth E. King, Merrill, Oregon. Letter to author, September 17, 1941. Also "Sheep Business in Klamath Has Long History," *The Herald*, Klamath Falls, Oregon, August 28, 1941.

Puget Sound, and soon there was an influx of settlers north of the Columbia River. Difficulties in crossing its swift current made the seat of government in Oregon relatively inaccessible. Likewise they barred a community of interest. In November, 1852, the "north-of-the-river" crowd met at Monticello, near the mouth of the Cowlitz River, and memorialized Congress for a separate government. Approval was granted and the new boundary was established on the River, extending eastward through Fort Walla Walla along the 46th Parallel. Thereafter the sheep industry strengthened, and a number of flocks sprang up in the vicinity of the Fort.

Jesse and Daniel Drumheller moved bands into the Walla Walla country about this same time, and began to push northward into the mountains for summer grazing. Other operators saw possibilities in the district between the Snake and the Columbia, and several were summering in the valleys of the Touchet and Lower Palouse rivers before 1870. By this latter date also, Jesse Drumheller had trailed his flocks as far north as the Spokane-Grand Coulee region, and proved its value as a summer range.<sup>82</sup>

A few sheepmen were attempting to establish themselves in the Inland Empire, where the climate was highly favorable to sheep raising, but the cattlemen had arrived there first. Only when the homesteader began to handicap the cattlemen were sheep allowed to come into the district.<sup>83</sup> The annual return of the summer trail bands to the region of the Grand Coulee Dam developed a trail down the steep switchback to the Columbia River. This provided the first access to the Valley when workmen started building the Dam.<sup>84</sup>

#### THE YAKIMA VALLEY

While the British-owned sheep stayed in the western part of the territory, and

the spread from the missionaries' settlements was confined to the eastern part, the central region in the Yakima Valley was not neglected. In the late fifties Augustin Cleman brought the first band of sheep and a few cattle to graze in the Yakima Valley, locating on a farm on Wenas Creek later owned by one of the well known characters of early Washington, David Longmire. Cleman's operations, though he was slightly crippled, were so successful that he started an informal banking business, making personal loans to stockmen and other settlers. His reputation for hospitality was superb, and no one passed his door without tarrying a while.<sup>85</sup>

The Merritts and Longmires also were early sheepmen in the Wenas district. James L. Merritt came in 1853, but soon crossed the mountains toward Olympia and did not return with sheep until ten years later. James Longmire had a flock of sheep and a herd of cattle by 1870, and his son Charles first ran sheep in the Cleman's Mountain section between 1870 and 1875. The latter was more interested in mutton than wool, and drove his fat wethers to the coast slaughterers via Naches Pass and down the White River.<sup>86</sup>

About 1878 Dan Goodman, an early partner of Jesse Drumheller, took sheep into the lower Yakima Valley, running them on the west side of the river around the mouth of the Toppenish and as far north as Ahtanum Ridge. At the same time some of the Walla Walla sheepmen

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<sup>82</sup> T. J. Drumheller, President, Washington Wool Growers' Association, Walla Walla, Washington. Interview with author May 17, 1940.

<sup>83</sup> Fuller, *History of the Pacific Northwest*, 325.

<sup>84</sup> Stuart Chase, "Great Dam," *Atlantic Monthly*, 161, No. 5 (November, 1938) :595.

<sup>85</sup> A. H. Splawn, *Ka-mi-akin*, 249.

<sup>86</sup> A. E. Lawson, Secretary, Washington Wool Growers' Association, Yakima, Washington. Letter to author, December 4, 1942.

started going south across the Oregon line into the Blue Mountains for summer grazing. Fortunately they escaped the Bannock raids. The next year, 1879, a few sheep were taken for grazing into the foothills near Ellensburg, but it was a quarter of a century before they pushed north seasonally into the Lake Chelan country and west of the Okanogan River.<sup>87</sup> Thomas Drumheller was the pioneer in this operation about 1905 or 1906.

In the mid-eighties there were four flocks of importance in the lower Yakima Valley. Dan Goodman was making his headquarters at Kiona, fifteen miles west of the mouth of the Yakima River, and was handling about twelve hundred head. Twelve miles southeast of Prosser, in the Horse Heaven country, a homesteader Frank LaFayette ran about seven hundred sheep. Farther south, but still in the Horse Heaven district, Frank Lyons had two bands totaling about twenty-eight hundred head, north of the Columbia River between Wallula and Arlington. Each summer he trailed his bands west of the Yakima Indian Reservation near Mount Adams. In the Glade district, southwest of Prosser fifteen miles, a man named Cunningham had about sixteen hundred head.<sup>88</sup>

During the winter of 1889-90, snow two-and-a-half feet deep fell all over the Yakima-Ellensburg territory, and stayed on the ground until April first. Feed supplies were soon exhausted throughout the area, and most of the sheep and cattle were lost. Cunningham shipped a car of corn and a car of prairie hay nearly two thousand miles from Kansas. It was fifteen miles from the railroad station to his headquarters, but by the time the feed arrived the sheep were too weak to trail out. There were very few teams of horses then in either Benton or Yakima counties, and Cunningham paid F. A. Phillips (later president of the Oregon Wool Growers) forty

dollars a ton to haul the feed, furnishing two men with shovels to help him get through. The first load required two days for the trip, the snow had drifted so deep. Cunningham managed to save about four hundred head, but LaFayette lost all of his flock.

#### THE COFFIN SHEEP INTERESTS

One of the largest outfits in the Yakima Valley started in Oregon in the late eighties—the Coffin Sheep Company. Its experience and development were typical of large operators. Arthur, Lester, and H. Stanley Coffin opened a mercantile establishment in Arlington in 1888, but in 1890 acquired two bands of fine-wooled sheep which they ran in the Condon country some thirty miles south. Three years later they transferred their mercantile business to Yakima, trading largely with the livestock operators and the Indians. The next spring they trailed their two bands into the Valley, but the wool market of 1894 was so weak that they could not get six cents a pound for their clip. Hence they had the entire stock of fleeces manufactured into Indian blankets, which were sold through the Yakima agency and other Indian agencies as far away as Arizona.

For the next two or three years the flock was run with only small additions, but gradually the owners began to add numbers of the usual crossbred sheep of the country. About 1905 their bands were increased extensively, and for several years Stanley Coffin devoted all of his efforts to sheep. He started a flock of purebred Lincolns from which he produced bucks to mate with his commercial bands, selling the surplus to

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<sup>87</sup> Lawson, Letter, December 4, 1942.

<sup>88</sup> F. A. Phillips, Keating, Oregon. Former President, Oregon Wool Growers' and Oregon Cattle and Horse Raisers' Association. Interview with P. T. Fortner, County Agricultural Agent, Baker, Oregon, November 10, 1940.

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other sheepmen. Also about 1905 his brother Lester<sup>89</sup> went over to Lewiston, Idaho, where he became a partner in two or three bands in the Cottonwood country with Stephen Hepton and Richard Stein. Lester Coffin's chief interest was in Indian trading, but he continued with the sheep for twelve to fifteen years. These flocks were never owned by the Coffin Sheep Company, although popularly credited to them.

Lincoln rams were used until 1920, when Stanley Coffin and his son, H. Stanley Coffin, Jr., toured New Zealand, inspecting the prominent Romney Marsh flocks, and selected one hundred ewes and rams for importation. These passed through quarantine satisfactorily in San Francisco in the fall of 1920. For two decades, they bred Romney rams to crossbred ewes and selected the replacements for their crossbred flocks from the ewe lambs of these matings.

The Coffin Sheep Company usually operated between fifty and sixty thousand head. Each fall it would purchase eight to ten thousand yearling ewes in Oregon. These were wintered and shorn the next spring, the operators selling them along with those of its own raising to sheepmen starting new flocks or replacing aged ewes. The Company also conducted a big trade in half-bred Romney yearling ewes, sending several shipments to Alaska and conducting an annual trade in Kentucky. These ewes proved hardy, vigorous breeders, taking excellent care of their newly dropped and young lambs. They sheared eight to ten pounds of three-eighths to quarter-blood wool, and supplied a regular demand from certain western woolen mills.

Each fall the wether lambs were sold directly off pasture. They usually weighed from ninety to one hundred pounds when taken to slaughter, as the pasture consisted largely of beet tops.

The purebred flocks run by the Coffin Sheep Company totaled about twenty-

five hundred ewes, mostly Romneys, but included also Corriedales, Hampshires, and Suffolks. The Company also dealt in both purebred and half-bred rams throughout the West, raised wether lambs for slaughter, and traded in young ewes not of their own breeding ( selling about twenty thousand head annually). Most of their young ewes were sold to breeders in Idaho, Montana, and Washington.

The sheep of the Coffin Company were usually run on the Colville Indian Reservation and in the Yakima Valley in the state of Washington.

Some flocks also were grazed near Polson, Montana. In Washington, the Company held title to about 150,000 acres of the choicest grazing land in the state, located in the Horse Heaven country, in the Cold Creek district in Yakima County, at the head of the Wenas, and between Ellensburg and Wenatchee. Besides owning this land, it leased about two hundred thousand acres that were adjacent to, or intermingled with, the deeded land. It also had large forest permits, as well as summer leases on the Indian Reservations, which accommodated about one-half of their flocks. To take care of winter requirements the Company owned several irrigated farms where it grew hay and various grains. The lambing grounds were on the Colville Indian Reservation and in the Horse Heaven country, while in Montana they lambed near Flathead Lake.<sup>90</sup>

Middle Washington had many large wool growers with operations fully as interesting as the Coffins—Malcolm McClellan, Anderson Brothers, and John Smithson of Ellensburg; Merritt

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<sup>89</sup> H. Stanley Coffin, Yakima, Washington. Letter to author, March 11, 1940.

<sup>90</sup> *Ibid.*

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Longmire of Selah; Peter and John MacGregor, "Jock" MacRae, and J. W. Richardson of Hooper; and William McGuffie, Archie Pryor, William Regan, and Ernest Berg of Yakima. By the intelligent use of shed lambing and the purchase of earlier maturing strains of rams, these operators have built up an industry that puts lambs on the eastern markets early in June. They fill a gap in the market supply that was noticeably weak when the slaughterers had to depend principally upon western fed lambs and eastern milk lambs in the June-July period.

Today these practices are epitomized in specialized systems like those of V. O. McWhorter of Prosser and Yakima, Art Bohosky of Yakima, and W. D. Hislop of Granger and Spokane. By developing extremely economical methods of wether production, the MacGregors bridged the interval when most sheepmen were shifting from older wethers to lambs. Up to 1916 they ran a fine-wooled flock of Rambouilletts and Merinos, and did not sell their wethers until they had been shorn twice. In that year they shifted to black-faced rams (purchased from the Butterfield Sheep Company of Weiser, Idaho), and began marketing fat lambs. The crossbreds were highly satisfactory for market but they continued to use white-faced rams to sire their breeding ewes, replacements for which they always raised themselves. Their lamb crop totaled about fifteen thousand head annually.

#### NEVADA

Great flocks crossed Nevada throughout the fifties—by the Overland Trail and southwesterly from Salt Lake through Las Vegas—but the passing travelers overlooked its ovine possibilities. Such pioneers as became permanent settlers located either in the bustling mining camps that wrote Nevada's early

history or along the trails where they could serve the passing immigrants. The discovery of silver and gold, rather than the attractions of pastoral production, initiated sheep settlement in the territory.

Douglas County, in the western part of the state, saw the first permanent flock in 1852 when C. D. Jones<sup>91</sup> introduced a band of "California Mexican" ewes to his range near Genoa, a few miles south of Carson City. For several years no one attempted to emulate him, but the discovery of the Comstock Lode and the establishment of Virginia City drew several woolgrowers into the district. The swirling population around the mines created a strong demand for meat, and sheep could be driven across the mountains from California and Oregon more easily than cattle.

In the fall of 1860 a large band was driven into the Truckee Meadows area near Reno (a grazing region of forty thousand acres), and a state history<sup>92</sup> reports that "only five hundred head" pulled through the severe winter. This was the first large band to locate within the state. The following fall thirty-two hundred head of "Illinois" sheep are said to have been grass fattened in the same area, while a band of three thousand "Mexican" sheep from California were trailed there in the summer of 1862. That same year prospectors in the central part of the state—near Austin and Eureka—created a new market for mutton. Sheldon O. Wells was the first prominent sheepman in this area, locating near Austin and later in the Eureka district.

Nevada became a state in 1864, and the next year four counties reported

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<sup>91</sup> Gordon, "Report on Cattle, Sheep, and Swine," *Tenth United States Census*, 3:1058.

<sup>92</sup> *History of Nevada*, Myron Angel, Editor.

more than a thousand sheep each—Washoe with approximately two thousand head; and Humboldt, Lander, and Nye with more than a thousand. In 1866 Ormsby County claimed flocks. By 1869 Douglas County, on the west side of the state, and White Pine and Lincoln counties on the east side, reported sheep also. Most of the bands in the west came from California, although some Oregon sheep entered northern Washoe and Humboldt counties. The flocks on the east side came from Utah. Almost all of these early sheep were brought into the state to fatten on grass, and practically none of them were breeding animals.

#### THE BUSY 1870's

With the opening of the seventies, Oregon became a more significant factor in the Nevada sheep picture. As early as 1867 Daniel C. Wheeler of Reno<sup>93</sup> had begun buying sheep in Oregon. These he trailed and later shipped to Reno. His original corrals occupied ground now used by the federal post office, while his house was on land where the state capitol stands. During the grazing season his flocks covered a great area in the triangle where Nevada borders California and Oregon. Throughout the seventies, thousands of sheep bred in the Lakeview district in southern Oregon were driven into northwestern Nevada for finishing. As activities at the mines began to slow down, the sheep were shipped into California or moved eastward to the growing feedlots of the Cornbelt area.

The winter of 1870 was a bad one in the Sierras. Heavy snows fell. Many trains of cattle and sheep were stalled in the railroad yards at Truckee and Boca, and had to be returned to Reno for feeding. Although the 1870 Federal Census showed only 11,018 head, local reports<sup>94</sup> indicate that Humboldt County

had fifteen thousand head and two years later forty-eight thousand head. Paralleling this development, Lander County, to the southeast of Humboldt, had twenty-six thousand sheep in 1871, and by 1872 Elko County in the eastern part of the state (now the leading sheep county) was reporting its first flocks. The two most prominent sheep operators around Reno during the early seventies were George W. Mapes and David Ridenour.

Estimates of sheep population for the state, reported by Wilson,<sup>95</sup> indicate that by 1874 there were over 185,000 head in Nevada. The possibilities for grazing were attracting the attention of California flockmasters, and in 1876 one of them drove a band of fifteen hundred into Nye County. After grazing them a while he drove on to southern Washoe County, where he wintered safely and located permanently. By 1880 his band had expanded to twenty-six hundred head in spite of sales and death losses and the total valuation exceeded five thousand dollars.<sup>96</sup>

The Nevada State Livestock Association was formed in 1876, and at its second meeting, the next year, its members reported forty-nine thousand sheep. Three years before, the state wool clip had totaled 668,738 pounds. Feed conditions were bad in the fall and winter of 1879–80. Washoe County reported 29,700 sheep as being grazed there, but the winter losses totaled 9,100 head.<sup>97</sup> The next spring only 50 per cent of the ewes in the Quinn River

<sup>93</sup> Fred W. Wilson, Professor, Animal Husbandry, University of Nevada. Letter to author, November 3, 1940.

<sup>94</sup> *History of Nevada*, 141.

<sup>95</sup> Wilson, Letter, November 3, 1940.

<sup>96</sup> Gordon, "Report on Cattle, Sheep, and Swine," *Tenth United States Census*, 3:1066.

<sup>97</sup> *Ibid.*, 1069.

district dropped lambs, due to poor nutrition, and the remainder of the state suffered correspondingly. However, the continuing use of Spanish, American, and French Merino rams was beginning to show effect. The average weight of fleeces in 1879 was, for rams, thirteen pounds; wethers, seven and one-fourth pounds; and ewes, six and one-half pounds. Herders were paid forty dollars a month, and board for them cost about twelve dollars per month.

By the mid-seventies the annual movement of sheep from the Sierras and foothills back to winter ranges had become pretty well standardized. The middle of September each year saw the trailing into the Truckee Meadows and similar pastures in full swing.<sup>98</sup> A state fair was held in Reno in 1877 where a flock of registered Spanish Merinos was exhibited by A. Evans. For the same year, Washoe County claimed thirty thousand sheep and the shearing of 186,688 pounds of wool, or 6.28 pounds per head.<sup>99</sup>

#### EASTERN NEVADA

Not all the development of the seventies occurred in the western and northern parts of the state. Over in White Pine County settlers were running both horses and cattle in Spring Valley, but this resulted in overgrazing and depletion of the range. However, sheepmen could make a living out of it. Toward the end of the decade a number of wool growers drove into the section, including James Sampson; James, Harry, and Thomas Bew; Pierce and Quick; Joshua Yelland, Patrick Keegan, Doutre Brothers, William McCurdy, and a man named Tippett.<sup>100</sup> All of them acquired substantial competences in the business.

James Sampson and the Bew brothers were employed at the Starr Mine at

Cherry Creek in the late seventies and early eighties, and started their sheep operations on the side. Sampson acquired a few sheep while still employed at the mine, and his wife herded them around Cherry Creek. Starting with fifty head he increased his holdings until in 1889 his season's clip, shipped to the Boston market, totaled more than two hundred thousand pounds. James Bew nearly equaled his record, while Harry Bew and Pierce and Quick also made large shipments. As the mining industry faded, the taxes from the sheep industry kept the county solvent.

South of Cherry Creek, in the Illspah section west of modern Ely, there were several cattle ranches in the early eighties. Especially important were the Halstead ranch at Round Springs east of Hamilton City and the Cleveland ranch with headquarters near Ely. About 1882, A. L. Parker trailed the first large drive of sheep from Utah and purchased the Round Springs Ranch from Halstead as a pasture for his flocks. There were several thousand head in Parker's trail bands, and he was somewhat fearful of stirring up trouble with the cattlemen. Cleveland, however, not only furnished meals and lodging for his men, but also feed for his teams and grazing for his bands. Later, when the Cleveland ranch was taken over by Adams McGill, it carried more sheep than cattle. At the peak the latter firm handled more than forty thousand ewes of very high quality.

In 1880 there were only about 520 acres of hay cut in the state, yielding around five hundred tons.<sup>101</sup> The cost of making it averaged around three

<sup>98</sup> *The Reno (Nevada) Journal*, September 15, 1877.

<sup>99</sup> *Ibid.*

<sup>100</sup> *Ibid.*

<sup>101</sup> Gordon, "Report on Cattle, Sheep, and Swine," *Tenth United States Census*, 3:1069.

dollars per ton, but such hay as was imported cost eight to ten dollars per ton. The total number of stockmen in the state was estimated as five hundred,<sup>102</sup> and sheep values were: rams, \$20.00; ewes, \$2.25; wethers, \$2.50; and lambs, \$1.50. During this same year more than thirty million acres were grazed by sheep, which still totaled less than a quarter-million head. By this time the presence of sheep was becoming common, and the *Reno Journal* did not protest when R. A. Frazier drove 1,750 head through the center of Reno on October 7, 1880, en route to his winter range in the Truckee Meadows.

#### PROMINENT NEVADA FLOCKS

Three great flocks<sup>103</sup> developed in the western part of the state in the mid-eighties. Henry Anderson, a Dane who came to Nevada in 1873, embarked in the sheep business in 1886. His flocks eventually ranged in Nevada, California, Oregon, Idaho, and Montana. He was noted for his courage as an operator, taking his losses in as perfect stride as his profits.

The second flock was the Smoke Creek outfit belonging to Patrick L. Flannigan. An Irish-born lad of seventeen, he arrived in Nevada in 1877 and bought a small band of sheep with money borrowed in Reno (no mean accomplishment in itself). By 1886 he was able to take up land in the Truckee Meadows and somewhat later procured holdings west of Pyramid Lake, where a cross-roads settlement was named for him. At the peak of his operations he owned more than five thousand square miles of range and had more than twenty thousand square miles under fence. He was associated in building the Flannigan warehouse and establishing the Nevada Packing Company of Reno. At one time he was perhaps the most influential

sheep man in the state, running more than thirty thousand ewes, two thousand cattle, and eighteen hundred horses.

As a national figure, the third big sheep operator, John G. Taylor of Lovelock, was best known. He walked into Nevada from California as a young sheep shearer, and worked for several flockmasters in the Truckee Meadows. In 1886 he leased a band from A. G. Fletcher, then administering the Hall estate of Austin. Most of his early efforts were in the central part of the state, but he spread his operations widely. In one of his early years he herded a band of ten thousand head alone, throughout an entire winter. He sold and shipped wethers to pay for feed and supplies. During the severe winter of 1889-90 many sheep and cattle were lost, and Taylor was one of the heavy losers. On occasion the thermometer reached sixty degrees below zero.

Taylor's ideals called for both size and quality in his flock and he was particularly successful in approaching this goal. At the peak of his operations at the close of World War I, he was handling sixty thousand ewes and ten thousand cattle.

As mentioned, the severe winter of 1889-90 caused many thousands of cattle, horses, and sheep to be lost from exposure and lack of feed. However, the sheep business was becoming permanent. Many sheepmen were buying the old "ghost" buildings in Austin and Eureka, and erecting livestock sheds, barns, and other outbuildings from the materials salvaged. That year traders bought more than sixty thousand Nevada sheep and shipped them into Nebraska for fattening. The practice of shipping Oregon ewes into the western part of the state, as well as wethers for grass fattening, also reached its peak about 1890.

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<sup>102</sup> Wilson, Letter, November 3, 1940.

<sup>103</sup> *Ibid.*

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Two large outfits were operated in the Battle Mountain area. The Jenkins flocks totaled fifteen to twenty thousand ewes which extended into Elko and White Pine counties during the early part of this century. The other flock belonged to Thomas Nelson, who began grazing five thousand head near Stone House in 1882. For years all of his herders were Chinese, and he was very successful in obtaining efficient and loyal service.

When the hard times hit the mid-nineties<sup>104</sup> he sold out his flock to John G. Taylor and Jerry Sheehan, and they resold it to Congressman Kent of California. But Nelson was able to repurchase it when business improved. In 1918, when the bands totaled nine thousand head, and Nelson held forest permits for grazing sixteen thousand head, Congressman Kent again bought back the flock. However, he soon sold it to the Bruneau Sheep Company of Mountain Home, Idaho. This latter company was operated by Frank Gedney, who formerly had been located in the Ruby Valley. Although much of his range was in Nevada, he maintained his headquarters in Idaho.

After 1900 the Golconda Cattle Company with headquarters in Humboldt County handled large flocks of sheep. When Harry Petrie was made Vice President and General Manager in 1910 it was running twenty thousand ewes and eight thousand cattle.

Two other prominent operators started in the eighties—William Scott of Denio and Andrew Frandsen of Reno. In the early days—about 1886—Frandsen operated in partnership with Henry Anderson, but they set up separate establishments about 1900 and both quit the business about 1920.

Several prominent Basque operators "put together" very sizable outfits between 1900 and 1910. Railroad land

was leased near Carlin for shearing, and a large dipping vat was built on Beaver Creek near the Bruneau Mountains. One hundred thousand head were dipped one season.<sup>105</sup> Probably the largest single operation was that of Matt Jaureguy who ran a flock of about ten thousand very high quality ewes north of Reno in Washoe County, Nevada, and Plumas County, California.<sup>106</sup> Other prominent operators about 1910 were John Saval, Joseph Saval, and John Etchart who operated in the Battle Mountain area. Perhaps as representative a sheepman of that day as any was Chauncey Griswold, who averaged fifteen to twenty thousand good ewes south of Elko, in the south Fork Valley of the Humboldt.

#### MODERN DEVELOPMENTS

The last part of Nevada to settle with sheep was along the northern border. A few attempts were made in the late eighties and early nineties to establish permanent flocks in the Quinn River Valley, Paradise Valley, and in the valley of Mary's River. But cattlemen were well entrenched in the latter two valleys, and the hard times following Cleveland's free wool blighted the few flocks that had attained a toehold. In 1896, when D. B. Lyon<sup>107</sup> trailed across the northern part of the state from Summit Lake and the Black Rock Desert to Mary's River, he noted only one band of about six hundred head that seemed to be permanently located in that region.

The modern phase of the sheep industry in Nevada really dates from

<sup>104</sup> Wilson, Letter, November 3, 1940.

<sup>105</sup> John Etchart, Tampico, Montana. Letter to author, February 25, 1943. "I left Nevada in the spring of 1910. The John Etchart you mention had a saloon or hotel and some sheep at Golconda. He was not related to me and I did not know him." Etchart is mentioned on page 305.

<sup>106</sup> Petrie, Letter, December 28, 1942.

<sup>107</sup> D. B. Lyon, Red Bluff, California. Letter to author, November 16, 1939.



FIG. 51—A late spring snowstorm. (Belden Photo.)



FIG. 52—Winter feeding band of ewes on the range. (Belden Photo.)

FIG. 53—(Right) William J. Chiesman, Black Hills flockmaster of pioneer days (p. 339).



FIG. 54a (Left)—Marquis de Mores, Duc de Vallambrosa, early wool grower in western North Dakota (p. 344). (From charcoal drawing by Edward Chinot, from the North Dakota Historical Society.) FIG. 54b (Below)—Chateau of Marquis de Mores, near Medora, North Dakota—now State property, filled with furniture, clothing, saddles, guns, and trophies once belonging to the family.



1900. Between 1910 and 1920 the industry became prosperous. Flockmasters began to specialize in feeder lambs and the older attempts to fatten while grazing were abandoned. Also, the growth of population in California placed a sound market foundation under the lamb-finishing industry in the western edge of the state.

South of Carson City an important cattle and sheep feeding area developed during the last quarter of a century, the leading influence being John and Fred Dangberg of Minden. Their father went into that district in 1885, starting sheep operations with a thousand breeding ewes. During the bad winter of 1889-90, one of his neighbors, Louis Rubenstroth, drove a band of two thousand ewes in from the desert to one of Dangberg's ranches, and left them with him for winter feeding. This was the hardest season known in that section of the state. When spring came the cost of wintering not only staggered the owner, but he faced heavy bills in restoring his ranch property, after the damage caused by heavy winter snows and spring floods. He therefore sold his band to Dangberg. This increased the latter's flock to three thousand head.

The purchase kindled Dangberg's permanent interest in sheep, and in 1899 he purchased a range in the Sierras about twenty miles from his valley ranches. This range provided him with ample summer feed, and his valley ranches cared for his winter requirements. A few leases then were acquired in the desert hills to the east to arrange for spring grazing. The summer range was first used in 1900, and the flock was increased to nine thousand ewes.

For two years<sup>108</sup> the Dangbergs raised their own ewes, which were sired by Cotswold rams, but they found they could sell their lambs for mutton at

higher prices than they had to pay for new breeding stock. They therefore purchased their breeding ewes from Basque sheepmen around Bakersfield, California—brockle-faced ewes of a Merino strain crossed with Shropshires. Until 1914, they used Shropshire rams themselves, but in that year they switched to Hampshires and in 1921 they bought a flock of registered Hampshires from which they bred their own range bucks. Their mutton stock was always marketed on the Coast, for years at San Francisco but later at Los Angeles, while their wool was usually sold to buyers for Boston commission firms.

One of the largest sheep outfits in Nevada during the first quarter of this century was the Union Land and Cattle Company, established shortly after 1900 by William Moffatt and Herbert Humphrey. This company owned 368,000 acres of deeded land, nearly all in Nevada, and held railroad, public land, and forest reserve leases that brought the total up to more than three million acres.<sup>109</sup> Much of the leased land was in California—in Sacramento, Amador, Plumas, Lassen, and Modoc counties—and in the two first-named counties the pieces of land were well scattered. One property in which the Company held 70 per cent control was the old Miller and Lux ranch in Antelope Valley close to the California-Nevada line.

At the close of the first World War<sup>110</sup> it was still running forty-five thousand ewes, forty-five thousand cattle, and five thousand horses. Both the sheep and cattle produced by the Company were shipped to their California feedlots for fattening and then on to the Union

<sup>108</sup> John B. Dangberg, Minden, Nevada. Letter to author, September 24, 1940.

<sup>109</sup> Petrie, Interview, March 17, 1941.

<sup>110</sup> Petrie, Letter, December 28, 1942.

Meat Company at San Francisco for slaughter.

As the latter grew in size, more than the production of its own ranches was necessary to keep the Butchertown packing house supplied, and a number of buyers were required. In the sheep end were two brothers, Dave and Ed Staunton, who operated so successfully and on such a scale before the first World War that the Union Sheep Company was formed and the Union Wool Company was established in Boston. Unfortunately, the latter was wrongly timed with reference to the end of the war, and its failure started the collapse of the old Union Land and Cattle Company

as well. Part of it was rescued by William Moffatt, and is still operated today as a breeding and feeding business.

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There has never been homogeneity in the sheep-growing practices of the states that lie on, or adjacent to, the Pacific Coast. But California and Oregon, at least, rendered a similar service in providing foundation flocks for states to the east. In fact, the blood of California and Oregon sheep underlies the commercial wool and lamb production of two-thirds of the western sheep-raising area.

*Arizona! The tramp of cattle,  
The biting dust and the raw red brand;  
Shuffling sheep and the smoke of battle;  
The upturned face and the empty hand.*  
—Henry Herbert Knibbs, "Arizona"

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## The Older Western States

BY 1850 a vast territory in the plain and mountain region of the West had become available for agricultural pursuits. Anglo-Saxons found the barriers created by hostile Comanches, Apaches, and Navajos far less formidable than did the Spanish-Americans. In the Mormon commonwealth more strenuous environments had to be overcome. The Merino, or its offshoots, implemented the wool grower, and its intense flocking instinct provided the basic control for a successful husbandry. In the region newly won from Mexico the peon furnished the fortitude and devotion underlying the survival of the industry, but in Utah it required the sons of the pioneers to develop the winning sheep techniques.

The two new regions were connected by the "Old Spanish" or "Escalante" Trail. From Santa Fe this route led to the Indian pueblo of Santa Clara, and then followed the Rio Grande to a pass over the Continental Divide where the headwaters of the San Juan could be reached on the Western Slope. Thence it turned due north to the Grand and White rivers, until travelers could cut conveniently westward to the Green.

In Utah there were alternative routes. One followed the approximate right-of-way of the Denver and Rio Grande Railroad, while the other (and earlier) crossed the Green River from the White, led up the Uinta and Du Chesnes to the Wasatch and over this divide. Here the

headwaters of Thistle Creek were struck, and the trail passed down it and the Spanish Fork to where the town of the latter name now stands. Then the route turned south over the sites of Nephi and Juab to cross another divide to the Sevier River, and thence via Las Vegas to the Mojave River, Teháchapi Pass, Kern Valley, King's River, and the upper San Joaquin to Monterey.<sup>1</sup>

When General Fremont returned eastward across it in 1843-44, he felt that the Spanish must have traveled the route a great deal, as most of the Indians he met could either speak or understand the Spanish tongue. It is definitely known that three separate parties of American trappers under Wolfskill, Jackson, and Ewing Young used the route in 1830, but at what date after Escalante's trip of 1776-77 it came into general use is not known.

### UTAH

Utah originally included more territory than now. It extended slightly west of the 116th degree of longitude in Nevada, and as far east in Colorado as the Medicine Bow Range, the Continental Divide above modern Denver, and the Sangre De Cristo Range—back and forth across the 106th meridian. The transfer of territory to Colorado, Idaho, and Wyoming had a profound effect on

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<sup>1</sup> Young, *The Founding of Utah*, 48-53.

the scheme of sheep husbandry in Utah, since it removed a large amount of fine mountain range from its borders. On the other hand, the territory transferred to Nevada was desert range like that of western Utah today, and that shift restricted volume rather than kind of operation. Winter utilization of desert range for sheep is more strongly characteristic of Utah than any other state. Portions of Nevada, southeastern Oregon, southwestern Idaho, and southwestern Wyoming follow similar practices. But Utah is the only state whose basic sheep husbandry depends on drives from mountain to winter desert and back.

The sheep industry in the state was developed by the Mormon population. The principal mining and a part of the commercial development resulted from Gentile activities, but almost all of the agricultural promotion was in the hands of the Mormon Church and its members. The first sheep came westward with the Mormon migration. The numbers were augmented through importations from New Mexico, but the Church and civic leaders made great efforts to bring improved rams into the communities and to promote wool production. By 1851 Smith<sup>2</sup> reports there were about fifty-five hundred sheep of eastern origin in Utah. In 1853 Elisha Van Etten introduced 266 Spanish Merino rams, which dominated the bloodlines of the state until the French Merinos began to appear about 1860.

Powers wrote that the establishment of woolen mills in Utah created a demand for finer wool than had been grown before.

Henry Bell traded to Brigham Young, for fat wethers, five thousand graded Merinos from California. Still, up to 1873 the quality of Utah wool remained poor, being little improved except by a few long-wool rams. In that year Daniel Davidson brought in four hundred high grade Merino rams, an example followed by others.<sup>3</sup>

By 1878 the effect of Davidson's rams

was being felt. From a flock of sixteen thousand ewes<sup>4</sup> he obtained more than ninety thousand pounds of wool (a 5.67-pound average). This was a big improvement over the one and one-half to two pounds per head shorn by the stock introduced from New Mexico in those days.

The year 1870 marked the shift by Utah wool growers from New Mexico<sup>5</sup> to California to procure replacement ewes for their bands. Every effort was made to obtain good quality grade Merinos with little outside mixture,<sup>6</sup> but for nearly two decades there was a division of opinion as to the best breed of rams to mate with them. Fine-wool bucks were brought from Ohio and Vermont and long-wool bucks were brought from Canada. Most of the latter were Cotswolds but some Leicesters and a few Lincolns were introduced.

The same strain of blood in sheep does not produce quite so long a wool as in the East. It is so dry and dusty that the grease seems to absorb the alkali and mineral dust . . . but since the large infusion of Merino blood, which has taken place in late years there has been a marked improvement in the quality of Utah wool in respect to length, softness, and fineness of fibre.<sup>7</sup>

About 1880 most of the wool growers began to concentrate on the Merino. Typical of the thinking then prevalent in Utah was the following excerpt from the *Rural New Yorker*, reprinted by the *Utah Farmer*:

The Merino is the sheep for the West upon which to found a hardy, successful, and profitable flock. The common native—which is a rundown, closebred Spanish sheep, originally of Merino blood mixed with some modern Merino—

<sup>2</sup> Moroni A. Smith, Interview, January 23, 1939.

<sup>3</sup> Powers, *The American Merino*, 274.

<sup>4</sup> O. J. Hollister, *The Resources and Attractions of Utah* (1879), 22.

<sup>5</sup> H. H. Bancroft, *The History of Utah*, 731.

<sup>6</sup> Hollister, *The Resources and Attractions of Utah*, 20.

<sup>7</sup> *Ibid.*, 20.

is hardy, cheap, and to the manner (and the *menor*) born. It can be purchased for \$1.50 to \$2.50 a head. When mated with the pure Merino, the second cross produces a grade of wool that often sells for more than that of the purebred. It herds well, is content with poor fare on which a big sheep would starve; its fleece is a coat of mail, water-proof and almost air-proof, with its close, well oiled and yolked surface; and it may be enlarged in size, weight, and length of fleece. . . . Ninety-nine percent of the losses is made from flocks of the purebred, longwool breeds.<sup>9</sup>

The foregoing statement is partisan, but probably can be challenged only in the last sentence and in the pronouncement on the origin of "common native" sheep.

#### COVERING "ZION"

An interesting phase of early Utah sheep history was the distribution of the flocks. All of the land first settled in Utah was given a local title that had no legal status, although in theory the Pre-emption Law applied. However, the 160-acre noncompetitive purchase for the settler on the land, who fulfilled other obligations of the law, did not fit with the plans of Brigham Young and other Mormon leaders who foresaw the need of small communities for both protection and administrative purposes.

Grants to individuals were made under the settlement plan adopted by the Church, usually twenty acres or less. These claims were virtually squatter claims under either the Preemption Law or the Homestead Law of 1862. But public sentiment compelled every man who obtained title under the federal laws to deed any previously occupied part of the land to the settler "squatting" on it. As a result, practically all Mormon communities were composed of land holdings of ten to twenty acres in size. When more land became necessary it had to be acquired outside these areas. In any event owners of sheep, beef cattle, and breeding mares had to go far beyond the cultivated fields and the dairy cow pastures to obtain adequate grazing.

Most of the primal farm communities were founded on this basis.<sup>10</sup> The first was Centerville, twelve miles north of Salt Lake City, where Thomas Grover took both sheep and cattle in the fall of 1847. When the nearby Indians did not disturb him he was joined the next spring by others, and a new community was established.

In many cases the immigrants were assigned places by Brigham Young, in watered valleys where they were instructed to stay unless they were driven out by the Indians. The energy and foresight of President Young were so effective that no section of the new region developed ahead of the others as far as sheep husbandry was concerned.

The agricultural resources were especially well divided among the colonists. At times the immigrants were assigned definite duties in order that no essential function would be overlooked. Thus, Alma Gates was sent to Salina in the Sanpete country. His instructions were to handle sheep, and the task was handed down through succeeding generations—A. S. Gates, C. H. Gates, and Reed Gates. The latter still maintains a band of about seven hundred ewes.<sup>11</sup>

In most cases the early flocks were small. The records of Iron County (south central Utah) for 1855 showed only 390 sheep assessed. One hundred were owned by John D. Lee of Harmony, and the remainder were divided among thirty other owners.<sup>12</sup> In St. George in

<sup>9</sup> *The Utah Farmer*, Salt Lake City, October, 1880, 144.

<sup>10</sup> A. C. Esplin, Wm. Peterson, P. V. Cardon, Geo. Stewart, and K. C. Ikeler, "Sheep Ranching in Utah," *Bulletin 204* (January, 1928) :4.

<sup>11</sup> S. M. Jorgensen, Salina, Utah. Former President Utah Wool Growers' Association. Interview with author, January 22, 1939.

<sup>12</sup> Glynn Bennion, Office of the Church Historian, Church of Jesus Christ of the Latter Day Saints, Salt Lake City. Letter to author, June 27, 1939.

1862, there were 667 sheep reported as the property of sixty different owners. N. C. Tenney, with a hundred and twenty sheep, was the biggest operator.

#### COMMUNITY FLOCKS

From the foregoing conditions arose the herding practice characteristic of the small Mormon communities for nearly five decades. The urgent need for economy of labor, characteristic of all frontier settlements, soon led the sheep owners to mark their individual animals and to combine their flocks under one or more herders, with a camp outfit appropriate to the greater distances to feed and water. Bennion writes:

At shearing and lambing times each of the several owners took out his own sheep from the herd, keeping them at home until they could be returned to the herd again. These pioneers were community minded enough, however, presently to submerge individual ownership of the sheep in the town herd. . . . Thus the town herd became the "co-op" herd, with a managerial head and directors.<sup>12</sup>

The cooperative agreement in the fifties called for the herder to give as rental to each member a specified number of pounds (usually eight) of wool and twelve head of lambs, per hundred head of mixed sheep—ewes, wethers, and lambs—in proportion to each member's share in the cooperative.<sup>13</sup> Furthermore, the old stock in the flocks had to be kept in good condition in case any particular owner desired to sell out.

An interesting sidelight is the complicated bookkeeping that was connected with these cooperative flocks. When the number of sheep owned by one man was such that he was entitled to a specified number of lambs, plus a fraction of another, he was credited with that fraction, and each year and generation that fraction became more complicated. Many members had such imaginary animals as 7/12 or 19/48 of a sheep to their credit.

One of the first sections to make constructive attempts to improve its flocks was the Sanpete region around Manti and Mt. Pleasant, during the early eighties. The cooperative flock at the latter point was established just at the close of the Blackhawk War in 1867. The first herder, custodian, and manager was Orange Seeley<sup>14</sup> who handled the flock for several years. Brigham Young sent him to Emery County, and he was succeeded for a two-year period by Leonard Jordan. Then John Seeley,<sup>15</sup> Utah's great Rambouillet breeder, a younger brother of Orange Seeley, took over the management. At this time the grazing in the Sanpete Mountains was at its best, and there was abundant opportunity to capitalize on improved methods.

Young Seeley figured that if he had better quality sheep in the cooperative flock, with heavier fleeces and higher lambing percentages, he could get a better return for his own efforts. He introduced several hundred ewes from the Guarmer-Grimaud flock in California to raise purebred French Merinos. His rams were registered French Merinos purchased from J. H. Glide at Davis, California. Surplus rams of Seeley's

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<sup>12</sup> Glynn Bennion, Letter, June 27, 1939.

<sup>13</sup> Moroni A. Smith, Letter, March 5, 1939.

<sup>14</sup> Orange Seeley was the eldest son of Wellington Seeley, who was one of three brothers sent by Brigham Young to establish a colony in California. At San Bernardino they operated a saw-mill and became prosperous. When General Albert Sidney Johnston's army was sent to Utah in 1858, President Young called the colonists back, and the Seeleys were sent out to the Sanpete district to help establish Mt. Pleasant. Orange Seeley ran the cooperative flock for several years, and on retiring turned the management over to John Seeley, his younger brother.

<sup>15</sup> John Seeley, younger son of Wellington Seeley, was born in San Bernardino in 1856, and after giving up the management of the cooperative flock in Mt. Pleasant, became one of the leading breeders of Rambouilletts in the United States. At one time he was president of the American Rambouillet Sheep Breeders' Association. He died at Fish Lake, Utah, July 21, 1920.

breeding were sold to other flocks in the Sanpete district. These not only improved the quality for the whole region, but Seeley's returns increased through the sale of these bucks as well as through the increased productivity of the cooperative flock. By 1888 he was able to establish his personal flock on the share he held in the cooperative. He was succeeded by W. D. Candland<sup>16</sup> of Mt. Pleasant, who finally bought out the other owners in 1893—terminating the cooperative association.

One method, whereby the question of ownership of a fraction of a sheep was settled, was by incorporation. The "Manti Cooperative Sheep Herding and Wool Growing Institution" filed its articles of incorporation in early February, 1886, under a law signed by the Governor on January 27. There were forty-four incorporators, all residents of Manti, and their charter established a goal of "carrying on breeding, importing, and herding of sheep, and the buying and selling of wool." Shares were ten dollars each and the capital stock sold totaled seven thousand dollars, but could be expanded to thirty thousand dollars. Eighty shareholders subscribed to amounts ranging from one to fifty-eight shares apiece. This overcame the complicated system of keeping members' animals separate and calculating fractions of an animal for each.

#### THE CHURCH FLOCK

The tithing system for the Church required that one out of each ten lambs be assigned to it. From this beginning there developed the rather large flocks which the Church at one time owned. The bishop in charge of each "stake" (a local jurisdiction within the Church administration) was responsible for its flock, which was usually placed in the care of the community shepherd. Many of the private flocks were turned out

alongside the Church flock, so a system of sheep brands, for identification, had to be used. The Church's brand might have been termed a flying cross, as it originally used barbed hooks on the four points ending the two crossed lines, but later it was modified to this simple cross, +.

The produce of the Church flock provided for the care of the poor and gave a meager start to newly arrived immigrants. This later had to be repaid.<sup>17</sup> Almost as soon as the colony at Salt Lake was planted, a Perpetual Immigration fund was established, based on the tithes, to which repayments from the later immigrants were added. This fund was used to aid converts in reaching Utah, and to establish Fort Supply in Wyoming. The latter lay east of Fort Bridger and was first used in the mid-fifties. Here a group of colonists irrigated fields, grew wheat, made flour, and kept sheep, cattle, and swine—with which to re-equip the immigrants whose supplies had failed. With their physical vigor rekindled, they could cover the remaining 125 to 150 miles to Salt Lake City.

#### PRIVATE RANGE FLOCKS

Utah's sheep population grew slowly during the first four decades. The Census of 1850 listed only 3,262 sheep, which by 1860 reached 37,332 head, and by 1870, 59,672 head. By 1880 the authenticity of the Census returns of 233,121 head was questioned. No sheep under twelve months old were included in the Census or in the assessors' reports, and state promoters were claiming 50 to 100

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<sup>16</sup> W. D. Candland was a breeder of purebred Rambouillet as well as a commercial producer. He operated one of the larger flocks of the state near Mt. Pleasant, was a state senator for many years, and was vice president of the Utah Wool Growers' Association for several terms. He died March 16, 1940.

<sup>17</sup> Andrew Jensen, Historian, Church of Jesus Christ of Latter Day Saints, Salt Lake City, Utah. Interview with author, January 21, 1939.

per cent more sheep than the data showed.

By 1890 the million mark was passed officially, and Minto<sup>18</sup> says there were three times as many sheep in the territory as all other farm animals combined. Private estimates of 1890 showed 1,950,900 head while the Census showed 1,014,176 head. By 1892 private estimates were claiming 2,800,000. The peak was reached in 1900 with more than three million head, after which there was a recession and fluctuation of numbers.

As the degree of economic security improved, various individual flocks were established, the owners making use of the knowledge and herding methods developed under the cooperative system. Few, if any, of the pioneer sheep owners mastered the handling of sheep on the Utah ranges.<sup>19</sup> But their sons, on whom fell the actual responsibility for herding the animals, did learn it, and they were really the ones who developed the technique of mountain and desert management.

At first the flocks were kept out of the high timbered areas through fear of bears or other sheep killers, or that they would be lost in the underbrush. In the winter they were driven down to the flats, but were kept near the creeks in the agricultural districts. The theory was that they might otherwise suffer for lack of feed and water. These fears of the high forest and the low waterless deserts greatly restricted the areas considered suitable for sheep. Thus, in the late seventies, the Cedar City Cooperative Sheep Association, owning more than ten thousand head, decided that its range was overstocked and leased its surplus sheep to the distant town of Orderville. Recently this same range supported more than four hundred thousand sheep through the intelligent use of desert grazing.

An interesting family in the early sheep business was descended from two Welsh brothers, Samuel and John Bennion, who first heard of the Mormon Church in Liverpool in 1840. They arrived on the shores of the Great Salt Lake October 6, 1847, and built log cabins near the pioneer fort. John Bennion had planned to continue his trade as a metal worker in connection with the building of the new city, but Brigham Young felt that the particular acres on which John Bennion settled would be better used in a large Church farm. Bennion therefore pulled down his cabin and re-erected it across the Jordan River in the best grassland of the Salt Lake Valley.

The two Bennion families had arrived with seven sheep, but all except one died shortly after arrival. As a reward for their cooperation, and because of their strategic situation with respect to grass, President Young sent them some of his surplus sheep and cattle to operate on shares. This example was followed by John Taylor (second president of the Church) and A. O. Smoot (father of Utah's long-serving senator, Reed Smoot). In 1854, the Bennions moved their sheep and cattle to Rush Valley in Tooele County. Ten years later the flocks and herds had increased so that they were also grazing in Cedar Valley, East Valley, Tintic Valley, and Skull Valley, near the southern line of the county. By 1875, they had seven thousand head of sheep, sixteen hundred cattle, and more than one hundred horses. Their operations thereafter were confined to Castle Valley in Emery County, south of Price, Utah, and to the slopes of Sanpete Mountain west of Fairview.

<sup>18</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 803.

<sup>19</sup> Glynn Bennion, Letter, June 27, 1939.

In earlier times their sheep were washed in the creeks before shearing, and the fleeces weighed five to six pounds per head. Throughout the seventies and eighties the Bennions' wethers varied in price from six to ten dollars each. Their first leases provided two and a half pounds of wool per head and eight to ten lambs per hundred of mixed sheep for the owner and required the maintenance of numbers and quality in the old stock. Like John Seeley, the Bennions saw the advantages of good blood. They used Cotswold rams on grade French Merino ewes or vice versa, until their sheep were averaging ten pounds of wool per head, and their lambs were weighing eighty pounds at marketing.

The sheep business has been maintained by their descendants to the present time. Much of the commonwealth that is owned and has been owned by the Bennion family, which now numbers hundreds, came from the livestock interests. Several of their grandsons are now operating in the sheep business, the most prominent being the Bennion Brothers of Cokeville, Wyoming, and the Bennion Brothers of Vernal, Utah. There are many others of the Bennion family in the sheep business.<sup>20</sup>

#### CENTRAL UTAH

The settlements gradually spread into the valleys of central Utah all the way up and down the state. Throughout the fifties there was little crowding, but by 1870 the areas from Cache Valley in the north through Sevier and Cedar valleys in the south were well known. Lehi was quite a center in the late fifties. Joseph J. Smith, Philandra Bell, and James I. Powell were operating from that time forward. During the seventies and eighties, numerous bands of fine-wooled sheep were trailed from California. The leading spirits were Scribner of Skull Valley, Utah; Adam Sharp and his son, John C. Sharp, of Vernon, Utah; Chapman Brothers of Evanston, Wyoming;

and Davidson ("Cap" Daniel) and Miller of Murray, Utah. Some of these importations continued into the nineties, but the animals were transported by railroad.

As the industry began to recover in the latter nineties, the Austin brothers—Thomas, John, and George—and the Smith brothers—David, Albert, and Moroni A.—became interested in lamb production. In 1896 the Smiths shipped from Heber City the first carload of milk-fat lambs to be exported from Utah.<sup>21</sup> These lambs were sired by Cotswold rams and Cotswold blood was used until 1920, when Hampshires began to replace them.

During the nineties also, the breeders in the Sanpete region commenced to spread Rambouilletts throughout central Utah. J. H. Seeley, W. D. Candland, and the Madsens were particularly influential. In 1920 Utah had nearly one-fourth of all purebred Rambouilletts in the United States (25,094 out of 106,849 listed by the Census), while 90 per cent of the purebred sheep in Utah (25,094 out of 27,870) were Rambouilletts. The balance was four-fifths Hampshire and the remainder, 561 head, were of diverse blood—Cotswold, Lincoln, Leicester, Suffolk, Shropshire, and Southdown. As a result of the use of the larger-framed Rambouillet bucks from the Sanpete breeders, ewes increased in weight from 100 to 130 pounds; fleece averages grew from about six pounds in 1900 to above ten pounds in 1930; and fleece shrinks held about steady between 58 and 62 per cent.<sup>22</sup>

<sup>20</sup> Samuel O. Bennion, General Manager, *Deseret News*, Salt Lake City, Utah. Letter to author, March 3, 1939. The information regarding the early Bennion sheep operations was obtained from both Samuel and Glynn Bennion, who are grandsons of the two immigrants.

<sup>21</sup> Smith, Letter, February 14, 1939.

<sup>22</sup> *Ibid.*

Well-bred sheep spread into the Sevier country in the eighties. About 1861 A. K. Hansen, Sr., established himself near Salt Lake City. But in 1881 he migrated to Sevier County near Richfield, taking his flocks with him. Sheep of Spanish and Navajo blood were already in the country but Hansen took the first well-bred Merinos there, and later brought in Rambouillets on which the modern flocks are based.

Almost all of the range flocks of southern Utah today are of this breed, but rams of the black-faced breeds are used quite extensively on Rambouillet ewes to produce mutton lambs. In the eighties and early nineties Charles Crane of Millard County . . . and the Magleby Brothers of Monroe, Utah, were probably the outstanding breeders of blooded sheep in this section. . . . In early days some sheared their sheep twice a year, in the spring and again in the fall. This practice was discontinued, as it was soon found that sheep shorn in the fall did not stand the cold winter very well. The peak of the sheep industry in south central Utah was reached about 1900 to 1905. The ranges became overstocked and depleted, and it was necessary to reduce the numbers materially.<sup>23</sup>

Previous to 1905 there was very little range land owned by any of the sheepmen of Utah. As overstocking developed, however, the flockmasters were compelled to buy lambing grounds to protect their interests. Due to these investments in land, earnings have been much reduced since 1912, except during the first World War and the boom period from 1925 to 1929. The depression and drouth of 1930 prevented any earnings on land investments and only a low rate of interest has been recovered on the investments in sheep.<sup>24</sup>

#### SOUTHEASTERN UTAH

Near the Colorado line in southeastern Utah, sheep were not introduced until relatively late. In 1855 an attempt, thwarted by Indian hostility, was made to colonize near the La Sal Mountains.<sup>25</sup> No sheep were taken nor was a further attempt initiated until 1880. Then a

little band of Mormons settled the village of Bluff, in San Juan County, and in the winter of 1884–85 a band of sheep was trailed from New Mexico by O'Donnell and McCallister. They were wintered on the range just north of the village.

The same year a Mexican by the name of Bonedita also brought some New Mexican sheep into San Juan County. Both of these importations consisted of sheep of the Navajo type, but after they had been there for a year or two, and had become acclimated, the colonists in Bluff purchased the best of them for a community flock. This flock was a cooperative enterprise for a number of years, along with the community store and a community canal.

About 1895 the community flock was sold to individuals. A presidential election was approaching and many in the community were fearful of the future. The panic of 1893 was attributed in sheep circles to Cleveland and the free trade in wool, and the lean years thereafter caused the owners of the cooperative flock to lose heart. The major portion of the band was purchased by L. H. Redd and Hanson Bayles. In addition, Hyrum Perkins, J. B. Decker, J. F. Barton, and the Nielson brothers purchased a few animals, and by adding others acquired in New Mexico and Colorado, entered the sheep business.<sup>26</sup>

There had been a Church flock in the community from the beginning. It was first handled in connection with the cooperative herd, but later various individuals took charge. Just previous to the breakup of the cooperative, these

<sup>23</sup> Abe Hansen, Richfield, Utah. Letter to author, March 5, 1939.

<sup>24</sup> Smith, Letter, February 14, 1939.

<sup>25</sup> Young, *The Founding of Utah*, 188.

<sup>26</sup> Charles Redd, Lasal, Utah. Letter to author, May 3, 1939.



FIG. 55—An Ancient Approach.

sheep had been under the custodianship of J. B. Decker. As in most western states, the running of wethers made up the principal part of the sheep operation to that date. They were usually sheared a number of years for their wool, and then transferred to the Colorado ranges for fattening before shipment for slaughter.

When the Navajos brought sheep into San Juan County is not known. Certainly they had had flocks there for more than 150 years when the Mormon settlement was established. The San Juan River lay about fifteen miles north of the Arizona line and approximately parallel. It formed the northern boundary of the Navajo Indian sheep operations, although occasionally some

of the more venturesome Navajo owners crossed their flocks over the river. However, the warlike Piutes resented their intrusion and usually succeeded in driving back the Navajo herders with their bands. From 1885 to 1910 there was some infusion of Navajo blood through additions to the local ewe flocks, but the sheep handled by the white operators were crossed to Merino rams and most of the ewes purchased were of grade Merino blood.

#### SEASONAL TRAIL MOVEMENTS

Seasonal sheep operations in Utah vary according to the section involved. Around the boundaries they tend to follow the same patterns as in the bordering states. In eastern and south-

eastern Utah, the sheep from Colorado and Utah graze together and the lambs and wool are usually marketed together. The "Arizona Strip"—a desert area north of the Colorado River and the Grand Canyon but south of the state line—is utilized almost entirely by sheep from Utah. Only one small village and a few ranches exist in the Strip, and in the winter from sixty-five to ninety thousand sheep graze this area in addition to several thousand cattle.

Along the western edge of the state, from Iron County on the south to Box Elder County on the north, the desert range in Utah and Nevada is much alike, and the sheep are grazed there under a uniform practice. Also, along the Utah-Idaho line, in Box Elder and Cache Counties, the Utah and Idaho sheep range together, many of the owners either holding lands or operating leases on both sides of the line.

From the mountainous districts of central and northeastern Utah, however, there is a seasonal movement into the desert each winter. The summer pastures are too high, the winter snows are too deep, and the cold and storms too severe to permit holding the sheep in the mountains any longer than mid-October. Very few of the ranchers are equipped to handle their flocks economically around the ranch headquarters, so practically all winter grazing is on the desert.

The longest seasonal migrations are from the northeastern sections of Utah to the Great American Desert of Utah and Nevada. The longest trail is from Rich, Summit, and Wasatch counties, across Weber, Davis, Salt Lake, and Utah counties, around the south end of Great Salt Lake, to the west side of Tooele County in Skull Valley, where the winter grazing begins. The sheep go on across the desert and some of them as far as one hundred miles into Nevada—in all two hundred to three hundred miles. All sheep are trailed these distances except rams, and occasionally a band of ewes, which are transported by freight trains. In central Utah, from Utah County, through Juab, Sanpete, Sevier, Piute, and western Garfield counties sheep trail to

western Utah and Nevada in winter, and return in the spring for summer grazing in the mountains on the eastern edge of these counties. The sheep of Iron County go south to the Arizona Strip and westward to the deserts of Utah and Nevada in winter, and east as far as Kane and Garfield counties in the summer. This is a shorter migration. Beaver, Millard, and Juab counties, like Iron County, have shorter migrations, but the ranges are very definitely divided, and the distance is from 50 to 150 miles.<sup>27</sup>

The relative value per flock of winter and summer grazing is of interest. The winter season is longer and lasts from mid-November to mid-April. The summer range is used from May first to November first, the flocks being en route between ranges for the intervening time. Smith<sup>28</sup> reports that fifteen thousand sheep require 100,000 to 125,000 acres for the winter desert season, and 75,000 to 85,000 for the summer period.

One interesting feature of desert grazing is the ability of sheep to get along with limited water. Very little rain falls, but before it becomes too cold the dew and later the frost provide a small amount of moisture. After snow falls the problem is less pressing. Brackenbury writes:

Coming from a watering country, I was interested when buying sheep in Beaver County, Utah, (five thousand yearling wethers), to find as I rode into the hills with Bishop Gunn to deal with the Mormon flock owners, that their sheep did not drink for many weeks on end. Streams there were, but they were down in deep gulches, and the sheep stayed above in the thickly chapparel-covered country. There was a problem to be solved when one went to load, for these sheep were very liable to sun stroke after being so long in the shade. . . . It was about twenty miles from the hills to the loading point (Milford), and we grazed until the sun was low, then drove as long as the sheep would travel out on the plain toward the station. Starting again at the earliest indication of dawn, and loading as quickly as possible, we lost only six sheep from sunstroke.<sup>29</sup>

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<sup>27</sup> Esplin, *et al.*, "Sheep Ranching in Utah," 16-17.

<sup>28</sup> Smith, Letter, February 14, 1939.

<sup>29</sup> R. Brackenbury, LaJolla, California. Letter to author, October 20, 1941.

In general the headquarters of the sheep owners of southwestern Utah were in villages midway between the winter and summer ranges. A medium range was usually found near these headquarters which the sheep could use between their migrations each spring and fall. This intermediate country was usually overgrazed, and poisonous plants were often found which caused heavy losses.

In the eastern part of the state the sheep tended to winter east and south of the irrigated valleys, and to summer west and north from the region extending from the Uintah Basin to San Juan County. The migration varied in distance from 50 to 150 miles. The flocks in the Uintah Mountains of northeastern Utah used these ranges for summer grazing. It is the best quality to be found in the state. In the winter, part of the flocks migrated to the western desert while others went east and south into the Green River Basin.

The winter bands were larger than the summer bands, varying from twenty-five to thirty-five hundred sheep in the winter and from twelve hundred to two thousand sheep in the summer. During lambing the ewe bands were often reduced to as few as seven hundred or even as low as three hundred head.<sup>30</sup> Larger herds could be handled in the winter due to the more open conditions on the desert, while the timbered sections of the mountains necessitated splitting into smaller bands for security during the summer. The smaller bands also prevented overgrazing along the trail and undue destruction of the newly sprouting plant growth.

Utah herders used the common sheep wagons in the winter but in the mountains during the summer preferred to employ tents for their camps. To prevent overgrazing, development of plant poisoning, and erosion, it was essential both in the desert and in the mountains, that

the sheep were not bedded down too frequently in a single area. Many herders equipped themselves so they could camp with their bands wherever night overtook them.

The shearing season in Utah ran from April to June, with the bulk of it being done in May. Both privately and co-operatively-owned shearing plants were located between the winter and summer ranges, but usually nearer the winter range.

#### UTAH'S WOOLEN INDUSTRY

Sheep were driven overland to Utah because the colonists needed woolens. The early settlers relied on home weaving, but the woolen industry followed hard on the heels of the sheep. Brigham Young brought the first carding machine to Utah in 1848. In the late fall of 1851, Matthew Gaunt started carding wool in a small factory he erected on the Jordan River, ten miles south of Salt Lake City. The following summer, July 10, 1852, he advertised in the *Deseret News* that he was prepared to card wool for any of the settlers desiring his services. By November, he announced that he had started weaving.

The first mills were erected in Parley's Creek Canyon in the mid-sixties and were known as the Deseret Mills. A little later the Wasatch Woolen Mills were set up below them. In 1867, a large mill, costing sixty thousand dollars, was started in Ogden. By 1870, the Provo Woolen Mills and the Brigham City and Beaver Woolen Mills were established.

In 1876, Lorenzo Snow wrote: "During the past seven years, the woolen factory has done a satisfactory business, and we have not been necessitated to close for lack of wool, winter or summer, and have manufactured about forty thousand dollars worth of goods annually. This

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<sup>30</sup> Esplin, et al., "Sheep Ranching in Utah," 18.

establishment, with its appurtenances, cost thirty-five thousand dollars."<sup>31</sup> Orion W. Snow, his son, stated that the institution maintained a flock of six to eight thousand head,<sup>32</sup> many of the sheep being grade Merinos. All of the wool was worked up in the factory.

By 1882, Utah possessed ten woolen mills, but they were operating only at half capacity,<sup>33</sup> the value of the goods manufactured being estimated at three hundred thousand dollars.

Carding, spinning, and weaving were habitual occupations of the pioneer Mormon housewife. From the flax, wool, and cotton of their own raising, the women manufactured blankets, flannels, linseys, towels, shawls, rag carpets, and other textiles. An excellent cleaning fluid for the raw wool was extracted from the roots of the Spanish bayonet. Dyes were made from the squawbush, sagebrush, rabbit brush, alder bark, peach leaves, madder root, and other local vegetation. The extent of household weaving was shown by Bishop Elias Blackburn when he stated that during the year 1854, the women of Provo alone wove more than thirty-five hundred yards of cloth.

John Bennion's Journal<sup>34</sup> reports the episodes of shearing "over Jordan" and the subsequent hauling of the fleeces to some craftsmen in Provo or Springville who had brought an old treadle loom across the plains. In exchange for part of the wool, the weaver would make homespun cloth, which Bennion would take home on a later trip. The women of the family would cut and sew this cloth to make the many pairs of breeches and jackets that his large family required. David Evans, the first settler of Lehi, annually produced more than six hundred pounds of wool, which was woven by his five wives into clothes and blankets for his forty-one children.<sup>35</sup>

Lumber was whipsawed in a pit, and hay for the cattle and horses around headquarters was cut with a scythe from the scanty native meadows. Nails were fashioned from hard wood cut as pegs, from the trees which the men found growing in remote canyons. In order to hold the joints of buildings or the crude furniture together, wet rawhide was wrapped tightly around the joints and the drying process tended to draw them closer.

In the home, baking powder was made by scraping the white powder from the surface of the alkali flats, dissolving it in water, permitting it to settle, and then adding the clean solution to sour milk for the making of bread. Flour was ground in tiny hand coffee mills. To obtain sugar the pioneers cut down the limbs of the cottonwood trees along the streams, dissolved the crystalline exudates of the aphids on the leaves in barrels of water, strained the resulting juice, and boiled it down to a sweet, brown sugar. In 1855 Shadrach Holdaway and James Simpkins manufactured in Provo a pioneer threshing machine from wood. This ended the use of the flail, and they also constructed a mill for making yarn and weaving cloth, to relieve the housewives.<sup>36</sup>

#### NEW MEXICO

Transition from the Spanish to the American phase of sheep husbandry in New Mexico required longer than the transition in government. A few Yankee flockowners were interested in the Rio Grande Valley during the fifties, but the

<sup>31</sup> *Journal History*, Church of Jesus Christ of Latter Day Saints, Salt Lake City, Utah, (1876) : 293, quotes Lorenzo Snow, Brigham City, Utah.

<sup>32</sup> *Ibid.*

<sup>33</sup> Bancroft, *The History of Utah*, 732.

<sup>34</sup> Glynn Bennion, Letter of June 27, 1939, quotes John Bennion's Journal.

<sup>35</sup> Smith, Letter, March 5, 1939.

<sup>36</sup> Bennion, Letter, June 27, 1939.

first purebred Merinos were introduced from Kentucky in 1859 by George Giddings. Five years before this, however, an organized band of sheep shearers was brought to Las Vegas by John L. Taylor of Urbana, Ohio. More than a decade transpired after the Civil War before the newcomers began to influence the industry.

The first twenty years of American occupation offered greater opportunities for advancement through politics or trading than through the practice of the pastoral arts. Hence, incoming settlers from the East were late in starting with sheep.

New Mexico was adversely affected by the cessation of the drives to California. From 1856 to the Civil War, the demand for westward trail bands fell off. Prices gradually dropped to levels of 50 cents to \$1.25 per head. Wool was baled like cotton and freighted by ox team via the Santa Fe Trail to the Missouri River. During the early sixties, wethers in an average flock grossed about seventy pounds live weight and dressed around thirty-five pounds of mutton. Connoisseurs reported the flavor and juiciness of the meat as quite superior to northern mutton. But the Merino "boom" had not yet spent itself in the Midwest, and it was not until the seventies that the mutton breeds became well known at the fairs or in the livestock sales of the Mississippi Valley. Hence the midwestern mutton, used for comparison, was purely a wool by-product.

#### THE YANKEE INVASION

American husbandry crept into New Mexico from the northeast. The first flock under American ownership was located at Willow Springs in 1870, in a beautiful arroya at the foot of the pass where the city of Raton now stands. The owner of this small band was named Thacker. He moved into Willow Springs

from Colorado, prepared to be a sheep operator. But six miles below him on the Red River, a Texan, Thomas Stockton, had established a cattle ranch headquarters in 1867. This proved a natural center for cattle roundups and formed a competitive barrier against expansion with sheep in this immediate area.

Not until the traveler reached the great Maxwell Grant of 1,700,000 acres, which centered at Cimarron, did he encounter sheep again, this time a flock of fifty thousand head. Within this vast empire were fine grama ranges, lumber tracts, and coal mines, and gold was discovered on Bald Peak inside its boundaries. Lucien Maxwell was the son-in-law of Don Carlos Beaubien, to whom the grant (in partnership with Don Guadalupe Miranda) originally had been given in 1841. After the death of Don Carlos in 1864, Maxwell built a huge manor house, famous for its lavish hospitality. In addition to the sheep, Maxwell ran about ten thousand cattle, one thousand horses and mules, and farmed more than five thousand acres. His reputation as a host and a man who would "take a chance" made him the leading figure of northern New Mexico until his death in 1875.

Despite Kit Carson's connection with Maxwell in the California sheep drive, and their continued friendship over the years, Kit never came back into the sheep industry. But numbers of their associates did, and the region around Taos proved to be an area where the older Spanish and newer American families met. There was little attempt to improve the quality of flocks in this decade because everyone worked for numbers. In 1872, Thomas described the industry of northeastern New Mexico as follows:

The . . . sheep of this Territory are small because no care seems to be taken to improve

the breed. San Miguel County (east of Santa Fe) appears to be the great pasturing ground for sheep, large numbers being driven here from other counties to graze. Don Romaldo Baca estimates that between five hundred thousand and eight hundred thousand are annually pastured here; about two-thirds of which are driven in from other sections. His own flocks number between thirty thousand and forty thousand head; those of his nephew, twenty-five thousand to thirty thousand. Mr. Mariano Trissary of Bernalillo County owns about fifty-five thousand head and Mr. Gallegos of Santa Fe nearly seventy thousand head.<sup>37</sup>

Romaldo Baca's flocks averaged a pound and a half of washed wool to the sheep. The going live price was not more than two dollars per head, but the wool paid all expenses and left the lambs (numbering 50 to 75 per cent of the ewe flock) as an annual profit. This made the northern New Mexico flockmasters particularly receptive to the Colorado, Kansas, and Nebraska buyers when the fattening industry began to develop in those states.

The Colorado feeding movement really started with the discovery of gold at the beginning of the Civil War. A tremendous influx of immigrants occurred, and the New Mexico sheep offered the most available meat supply. Tens of thousands were trailed to the mining camps. One of the largest operators in this traffic was Pedro C. Armijo of Albuquerque, who in 1873 moved twelve thousand sheep in a single drive into the Colorado country. Throughout the sixties the numbers increased. New Mexican sheep became foundation stock for Colorado and eastern Wyoming flocks, with a very considerable influence in Utah.

Powers<sup>38</sup> noted in the early eighties that the only section of New Mexico in which there was an appreciable proportion of improved Merino blood was in the northeast corner where the Americans had settled—Colfax, Mora, and San Miguel counties. But he stated that the growers were consciously trying to retain

an eighth to a quarter of "native blood to preserve hardiness." He felt that what the New Mexican flockmaster gained in weight of fleece, fineness of staple, and symmetry of form through the use of Merino sires was offset by losses in fecundity and hardiness. Winter storms were "very sudden, cold and terrific," and losses were "fearful." However, the first cross Merino doubled the weight of fleece while one or two more crosses brought average fleece weights of eight pounds of unwashed wool, which was "tolerably fine, yolk, and of a fair to medium staple." This was about as many crosses as growers believed they could handle "without detriment to the rustling, hardy habit, and fertility."

#### OLD DAYS IN LAS VEGAS

A second point where American and Spanish sheep owners came into contact was Las Vegas. The original grant for the city required that it be walled with a great plaza inside to which the sheep and cattle could be driven for protection from the Indians. No other city nearer than Santa Fe was as well prepared, so Las Vegas became a natural livestock center. Iden wrote of the general conduct of the industry:

In the early eighties, the herder, or herders, would leave the lambing grounds with their flocks of sheep after lambing or shearing time; or just as soon as the rainfall would permit travel over the country—the distance depending upon the water gathered in the natural water holes or lakes. They at times would drift a hundred miles or more distance from home. . . . Practically all of New Mexico in those days was without limit in which to graze. By (the next) lambing time, generally in April, sheep and herders were back home again on the lambing ground, usually locating in some green valley where there was running water, with early salt or alkali grass. . . . The herders would visit their families probably twice during the year, and after a few days of jollification, dances, and

<sup>37</sup> Cyrus Thomas, *The Agricultural and Pastoral Resources of Southern Colorado and Northern New Mexico*, 14.

<sup>38</sup> Powers, *The American Merino*, 231.



FIG. 56—Pioneer feedlot established at Gibbon, Nebraska (pp. 347-49), about 1888 by Franklin Hershey (pp. 349, 613). The sheep were trailed from Oregon, following shearing. Hershey's son is in left foreground.

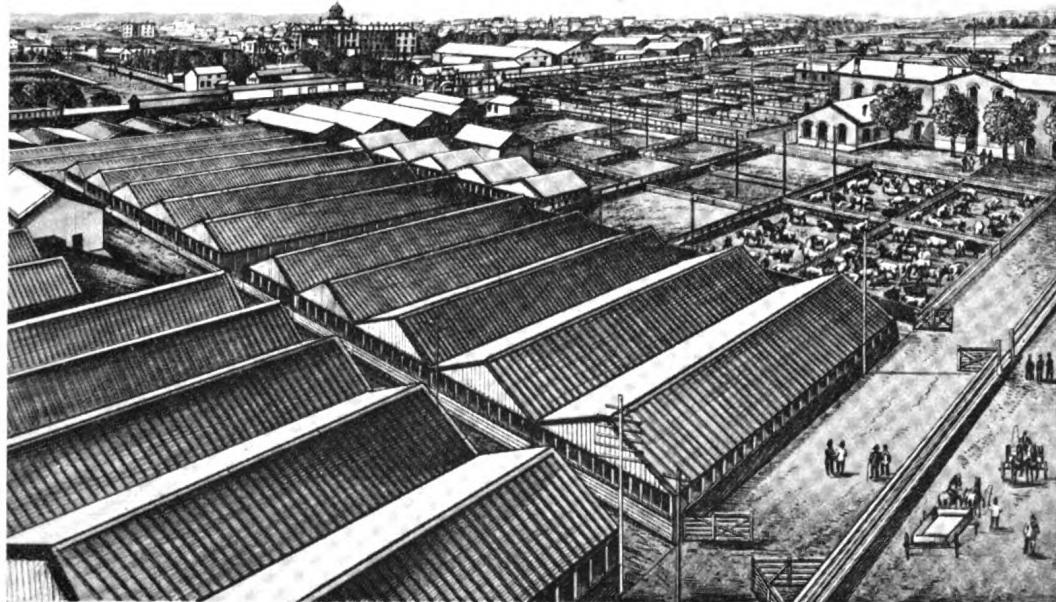


FIG. 57—Chicago Union Stockyards in the early eighties. (Heyer Service.)



FIG. 58—The “Deadwood” Stage (p. 330) connecting Cheyenne and Fort Laramie, Lusk, and Deadwood. Russell Thorp, Sr., proprietor, is standing by the wheel pair of horses. (Photographed at Cheyenne on the last trip, February 19, 1887, by Russell Thorp, Jr.)



FIG. 59—Sheep grazing in aspen-spruce zone of Uncompahgre National Forest southeast of Montrose, Colorado. (United States Forest Service.)

plenty of native wine, with everybody happy, they were off again. With the low cost of living in those days—beans around two cents per pound, calico for clothing being purchased by the yard, and liberal use being made of unbleached muslin, etc.,—the needs of the herders and their families were, of course, small. The herders usually made their own moccasins by hand and wore them in place of shoes. They would kill a deer, use the buckskin for making their moccasins, and the deer meat would give them a change of diet. Chili was raised in abundance by the owner, or *patron*, as he was called. Sheepherders were paid \$12 to \$15 per month, and boys fifteen or sixteen years old received \$8 to \$10 per month. At those wages it was not unusual for a reliable herder and his boy to draw down \$75, or even as much as \$100, in advance. The herders in those days were very faithful and honest as a rule, and were really in love with their vocation. They enjoyed getting around the camp fire with herders of nearby flocks and at night would sing songs of their youth, blending together with voices full of harmony, typical of the period and country, and the generations before them, dating back to . . . old Spain.<sup>39</sup>

In 1880, Gordon<sup>40</sup> notes that 38 per cent of the sheep in New Mexico were Merino grades, and the rest "natives." But only 60 per cent of the ewes bore lambs, and the annual lamb crop averaged only 38 per cent. By that time the practice of fall shearing in southern New Mexico was declining, and it practically disappeared by the end of the century. The usual month for spring shearing all over New Mexico was then in May, after which the lambs were marked, docked, and castrated. Gordon confirms Iden that lambing occurred principally in April.

Two herders were usually with each flock—one to herd, one to tend camp—while two burros were used to carry equipment with "rations for a grazing campaign of weeks." Tents were seldom left in one spot more than twenty-four hours. The average native wethers dressed thirty-five to forty pounds, and the Merinos dressed fifty to fifty-five pounds. In 1880, including flocks totaling more than ninety-five thousand head, slightly more than 62 per cent of the

sheep were ewes, nearly 22 per cent were wethers, and 15 per cent were lambs. It was estimated that about 24 per cent of the lambs survived to become yearlings.

Before the advent of the railroad (which did not reach Las Vegas until 1880), firms outfitting the sheep industry were operating there. In 1878, Otero, Sellar, and Company moved to Las Vegas from the little town of Otero, south of modern Raton,<sup>41</sup> and opened a general merchandise business. Neither this firm nor its successor in 1881, which ultimately became Gross, Kelly, and Company,<sup>42</sup> financed sheepmen or operated with *partidarios*. However, several other firms did. Also the custom became widespread whereby the sheep grower drew both supplies and cash from a mercantile company, then turned over his wool, lambs, and old ewes to that company to settle his account and to hold the balance of income in his favor. From 1875 to World War I, much of the New Mexican sheep industry was handled in this manner, and Las Vegas, Santa Fe, Albuquerque, Socorro, and other cities were centers from which such operations radiated.

#### RANCH FAMILIES

During the period just after the Mexican War several Germans, who ultimately engaged in the sheep business, came into New Mexico. In general they were traders and spread into flock ownership through the outfitting of small operators. Two such families have been prominently identified with sheep to the present day—the Ilfelds and Hunings. The

<sup>39</sup> Clarence W. Iden, Las Vegas, New Mexico. Letters to author, September 16 and 20, 1938.

<sup>40</sup> Gordon, "Report on Cattle, Sheep, and Swine," *Tenth United States Census*, 3:991.

<sup>41</sup> Governor M. A. Otero, Santa Fe, New Mexico. Interview with author, February 7, 1939. See Biographical Appendix for information on Otero, Sellar, and Company.

<sup>42</sup> Otero, Interview, February 7, 1939.

Ilfeld brothers established a mercantile business in Las Vegas as the eighties opened. Their earliest transactions were on a credit or cash basis and it was not until 1885 that they actually became owners of sheep. Later they established a branch store in Albuquerque and moved their headquarters there, where the elder Ilfeld died in 1920. About 1908 the Ilfelds entered partnership with E. L. Moulton, and the company was christened the Ilfeld-Moulton Company during the first World War. At the close of the war, the supervision of all the livestock interests was placed in Mr. Moulton's hands.

The three Huning brothers came from Mele in the vicinity of Hanover, Germany, the eldest in the late fifties.<sup>43</sup> Prior to the development of the railroad they did a large business in supplying provisions for the federal forts in Arizona from a New Mexico base. These supplies were freighted, first by ox team and later by mule team, as far west as Fort Whipple, near Prescott. Supervision of this business was originally under the elder brother, Franz Huning, who lived in Albuquerque. But best known in the sheep industry was Louis Huning, who came west with the J. H. Lee party in 1864, to locate at the American Ranch near Prescott, Arizona.

By 1880 the two younger brothers, Louis and Henry Huning, had acquired a flock of sheep which they wintered in what are now Valencia and Catron counties, New Mexico, and summered in the White Mountains of Apache County, Arizona. Their bands totaled sixty to seventy thousand head. In 1885 these two brothers dissolved partnership. Louis Huning took the sheep and established headquarters at Las Lunas, New Mexico, while Henry supervised the supply business in Arizona, with headquarters at Show Low and Holbrook.

Fred D. Huning, a son of Louis, carries on the flock today.

The great sheep operation in western New Mexico belonged to the Luna family. This family dated back to the turn of the nineteenth century and owned flocks in the country south of the Zuñi villages at the time of the Mexican Revolution. When the territory became part of the United States, the head of the family was Antonio José Luna, whose elder brother Jesús participated with him and Judge Otero in the pioneer drive of ten thousand wethers to the California gold fields in 1849. Two sons carried on the business, Solomon and Tranquilino Luna. At the peak of their operations they owned more than a hundred and fifty thousand head, and Solomon Luna was the dominating figure in the industry of the territory from the eighties to World War I. In the late nineties, he was the chief mover in organizing the Sheep Sanitary Board and became its first president.

At the height of Solomon Luna's influence, another Spanish family—the Mirabáls—became almost equally important. During the Mexican War the head of this family fought on the Mexican side, but quickly adjusted himself to American contacts. His son, Silvestre V. Mirabál, assumed leadership in 1880, learning American ways himself by hauling great ox-trains of wool to Kansas City on several occasions. He developed large flocks in Valéncia County, with headquarters at San Rafael, southwest of Mount Taylor. With five brothers, he conducted a most extensive sheep operation, handling well over one hundred thousand head at the time of the first World War, and holding title to more than a quarter million acres of land.

<sup>43</sup> Fred D. Huning, Las Lunas, New Mexico. Letter to author, September 25, 1940.

The Mirabáls were also large cattle owners, and Don Silvestre was active both in banking and politics. He was among the founders of the Sheep Sanitary Board, and performed the duties of official inspector for many years. He also was a charter member of the Territorial Wool Growers' Association in 1903, and served as director and vice president. With the exception of Solomon Luna, he probably exerted more influence on the industry of western New Mexico than any other individual. Don Silvestre carried over to this century the finest traditions of the old Spanish *ranchero* and flockmaster.

Several American families rose to importance in the New Mexico sheep industry as the century closed. One of the large operators was Thomas F. Catron of Santa Fe, a former United States Senator who ran sheep in Valéncia and Catron counties. When the tariff fight was taken up after McKinley was inaugurated, Catron represented New Mexico at the famous meeting between the wool growers and manufacturers, February 9, 1897, at the Ebbitt House in Washington, D. C. His activity here led to making him a director, and later a vice president of the National Wool Growers' Association.

Harry W. Kelly, of Gross, Kelly, and Company, Las Vegas, was one of the most influential members of the Sheep Sanitary Board, and from 1901 to 1903 was a director of the National Wool Growers. Since the first World War, Senator Floyd W. Lee of San Mateo has served on the same board, on the directorship of the American National Live Stock Association, and as president of the New Mexico Woolgrowers. His uncle, Harry F. Lee of Albuquerque, was secretary of the Sheep Sanitary Board during its formative years and shared with Solomon Luna, credit for its early success.

About the turn of the century, George and Frank Bond of Espanola and Albuquerque laid the foundation for the great system of partnerships that made them dominant in New Mexico's feeder lamb trade, and highly influential sheep operators in various parts of the West and Southwest. Over in the Roswell country, W. S. Prager was a member of the first Sheep Sanitary Board in 1897, while H. M. Miller was one of the inspectors. Both had large flocks, and Prager Miller (nephew of the first and son of the second) was president of the state wool growers' association for several years. Down the Rio Grande at Socorro, former Senator H. O. Bursum handled large flocks from the nineties forward. Another big outfit at the close of the last century was maintained at Springer by S. Florsheim, with H. C. Abbott as partner and manager.

In 1900 two Americans who were getting established in New Mexico conducted an interesting venture into Alaska. "Cy" and "Gus" Dawson were carrying a \$10,000 mortgage on a ranch which they ultimately sold for \$180,000. The gold boom in the Klondike was then at its height, and the demand for food insatiable. A thousand head of sheep were bought in the state of Washington at three dollars per head, and shipped on four small vessels from Seattle to Skagway. En route the boat on which "Gus" Dawson was traveling careened, giving him and most of the 250 sheep a wetting, but the losses were light. From Skagway they were trailed overland, and sold to a German butcher on the Yukon at thirty-five dollars per head, paid in nuggets. The net margin was seventeen thousand dollars, which covered the mortgage and left a generous profit.<sup>44</sup>

The last of the Indian outbreaks to

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<sup>44</sup> H. C. Abbott, Interview with author, February 8, 1939.

affect the New Mexican sheep industry seriously, occurred in 1881 when the Apaches raided San Marcial. On January 18 they brutally murdered two miners and five sheep herders in Cloride Gulch. On January 23 they butchered a Mexican flockowner, as well as two women and a boy from his family. They also attacked the party of a mining engineer employed by the Santa Fe railroad, killing two of them.<sup>45</sup> The presence of General Philip Sheridan, and prompt reprisals by the army thereafter, displaced most of the murderous Indians westward into Arizona.

As in other states, the New Mexican sheep population dropped after the Civil War by about one-fourth. But in 1880 it exceeded two million head and in 1900 reached nearly five million. The reduction during the early twenties brought the numbers down to one and two-thirds million, and they have fluctuated around two million head since. The industry of the state more closely preserves the old Spanish traditions than is the case elsewhere. The personal relations between the owner, or *patron*, and his employees in many sections is still medieval in so far as dependence of the employees is concerned, but a vast change has taken place in the last half century in the friendliness of the relationship and in the liberal treatment of the herders and *partidarios*.

#### ARIZONA

Like Nevada and Wyoming, Arizona furnished a trailway for sheep long before American flockmasters discovered its possibilities for production. Nearly two-thirds of a million sets of ovine hooves beat their way through the Arizona dust en route from New Mexico to the gold fields, and more than a quarter million of them reversed direction from California again as the Territory settled. Arizona's sheep trails eventually became

wagon roads and railroads, while most of the highways within her borders today were known and used by the shepherd and his flock long before the surveyor applied his instruments to them.

Outside of the Spanish, the first white settlers to produce sheep consistently were the Mormons. Contrary to the customs of early Utah, sheep were not a sideline but formed a specialized business. During the sixties numerous Utah flockowners grazed as far south as the Grand Canyon, and a few of the more venturesome crossed the Colorado River at the point now called Lee's Ferry. The pioneer in using this route was Jacob Hamblen, a Mormon explorer and missionary. He discovered a difficult but practicable trail from Utah into the Painted Desert by way of what are today Lee's Ferry, Tuba City, and Grand Falls. Thence he continued up the Little Colorado to Sunset Crossing (near Winslow), first driving sheep over the route between 1871 and 1873.

Hamblen located in southeastern Utah in 1853,<sup>46</sup> and in 1858, 1859, 1860, and 1862 made proselyting trips to the Hopis. He crossed the Colorado River at every possible point from Pearce's Ferry south of St. George, Utah, to the "Crossing of the Fathers" just at the Utah line. The trip of 1858 was particularly difficult, as he went for days without water after leaving the Colorado. The first sign of Indians was a Hopi sheep corral, and the first articles of trade he took to them on his next trip were sheep shears and wool cards.<sup>47</sup>

Between 1875 and 1880 quite a large number of Mormon settlements were

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<sup>45</sup> *Albuquerque (New Mexico) Journal*, January 26, 1881, February 14, 1881, and April 30, 1940.

<sup>46</sup> Lockwood, *Pioneer Days in Arizona*, 308-11.

<sup>47</sup> Juanita Brooks, "Jacob Hamblen," *Arizona Highways*, 19, No. 4 (April, 1943): 32-33.

made, the principal ones being along the Little Colorado and its tributaries at Tuba City, Moencopi, Sunset City, Joseph City, Snowflake, St. Johns, and St. David. Farther south was Mesa in the Salt River Valley.

Before the end of the decade the flocks had increased to such a degree that both Tuba City and Moencopi established woolen mills.<sup>48</sup> The promoters hoped to supplement the production of the Mormon colonists with Navajo wools, but the quality of the latter fibers was so bad that the Mormon women made better fabrics on their home looms. As a result, the mill at Sunset City, established in 1876 by Bishop Lott Smith, soon had to be abandoned. The one built near Tuba City by John W. Young (son of Brigham) had an equally short career despite its 192 spindles and its patent looms. The chief competitive difficulty, however, lay in the fact that California woolens were readily available in the market, and the quality of Navajo and Utah wool fibers at that date could not match them regardless of workmanship.

#### APACHE RAIDS

The most difficult time in Arizona history was at the onset of the Civil War. Regular troops stationed near Tucson had to be withdrawn because of the Confederate threat farther east, and for a short time the Indians were unrestrained. The Apaches had begun violent attacks on the Mexicans as early as 1830, but the American conquest of the territory restrained them temporarily. When the troops were withdrawn, the Apaches engaged systematically in blotting out the white settlers. The arrival of the California Volunteers at Tucson upset their plans, but during the late sixties, the seventies, and the early eighties, their continued attempts absorbed most of the Apache's attention.

The tribe's raids stretched farther and farther west until they were pillaging the settlements around Fort Whipple. In May, 1872, Apaches stole two thousand head of sheep ranging on Granite Creek (not far from the Fort) from L. A. Stevens and Levi Bashford of the Stevens Ranch.<sup>49</sup> Fortunately peace officers overtook them and restored the flock. The *Arizona Citizen* a week later carried a card of thanks to the officers. No contemporary estimates of the damage this tribe did to the sheep industry are available, but an annual toll ranging from twenty thousand to forty thousand head was probably exacted for fifteen years.

The Apache method of stealing sheep and moving them over long mileages was ingenious. When they had driven a flock far enough to organize it for a long flight, they formed a parallelogram with the strongest sheep lashed in pairs on the outside to form an animal fence. The parallelogram seldom exceeded thirty feet in width and the lashed couples were arranged on the outside, usually tied from front to rear with long thongs. The main flock was placed inside the enclosure thus formed, and the group was made long enough to include the entire stolen band. Instances were known when several thousand sheep were handled in this manner. This device not only forced the whole band forward uniformly, but prevented the weaker animals from lagging or straying, especially at night. Along each side of the mass, flank guards or drivers were stationed at regular intervals. They preserved the width of the flock and maintained a regular rate of speed. At the head was a select body of warriors

<sup>48</sup> Bert Haskett, "History of the Sheep Industry in Arizona," *Arizona Historical Review*, 3, No. 3 (July, 1936):22-23.

<sup>49</sup> *Arizona Citizen*, Tucson, June 1, 1872, and June 8, 1872.

forming the advance guard, while the main body of the tribe brought up the rear. Drives<sup>50</sup> are reported of fifty to seventy miles in a day, but the distances were reduced as soon as they were safe from pursuit.

#### ENDING THE NAVAJO MENACE

Apaches were not the only Indians that menaced Arizona's flocks. In the northeast corner of the state were the Navajos. Here Kit Carson made a second contribution to the sheep industry—by overwhelming the Navajo raiders of northeastern Arizona and northwestern New Mexico. After the War with Mexico the Navajos never came to peace with the United States Government, despite the signing of six treaties. All six were broken before the treaties were filed, and three out of four campaigns against them by the Army failed. Hence a policy was adopted that took advantage of the knowledge and skill of the old Indian fighter.

In 1863 "Colonel Christopher Carson" was given command of 735 officers and men to bring the Navajos to terms, although garrison considerations reduced the field strength to about four hundred men. The campaign was one of constant hard scouting and skirmishing. The idea was to wear out the Indians by capture of their herds of sheep and ponies; the destruction of their fields of corn, beans, pumpkins, and other crops; and the covering of all water supplies by occupancy of small detachments of troops.<sup>51</sup>

By mid-August the sheep and goats captured were pointing the way toward the successful termination of the campaign more accurately than the number of Navajos taken. On August 19 Captain Pfeiffer's company took one hundred sheep and goats; on November 15, Sergeant Herrera brought in fifty sheep; on November 25, the entire command cut off five hundred fifty sheep; while in

December Carson got twelve hundred head in one drove and many smaller bunches. On January 12, Herrera again claimed 130 sheep from the Navajos, while in the final cleanup of the Canyon de Chelly, Captains Carey and Pfeiffer captured 200 head more. These captures broke the Navajo resistance; three thousand out of an estimated five thousand in the tribe surrendered; and all were transferred to Fort Sumner in New Mexico.

While the capture of their sheep lost the war for the Navajos, the restoration of flocks in 1869 re-established them as peaceful, productive dwellers in Arizona. In that year the Government called in all the tribe, counted them as the Indians went into a great corral (something less than nine thousand individuals), and then distributed to them fourteen thousand sheep and one thousand goats.

Navajo tradition indicates that when these animals were delivered, Captain Bennett, in charge, told them to take good care of their sheep since they would increase rapidly if handled properly and would provide sufficient food and clothing for all members of the tribe. However, if the sheep were allowed to perish from lack of attention, the Indians would become destitute, and suffer from sorrow and want.<sup>52</sup> Captain Bennett wrote a year later:

I have never seen more anxiety and gratitude displayed than was shown by this people during this issue. I think they realized the magnitude of the gift, and are reaping full benefit of it, as they are not killing any, but have large additions to their flocks in all parts of the reservation.<sup>53</sup>

Ordinary native New Mexican sheep, hardy and well suited to the environ-

<sup>50</sup> Cremony, *Life With the Apaches*, 282.

<sup>51</sup> Sabin, *Kit Carson Days*, quotes General Asa B. Carey, 711.

<sup>52</sup> Mary Roberts Coolidge, *The Rain Makers*, 258.

<sup>53</sup> Haskett, "History of the Sheep Industry in Arizona," quotes Captain Bennett, 13.

ment, were delivered. Captain Bennett's advice was incorporated into their practice. Since then, the tribe has multiplied to above thirty thousand in number and the flocks have increased to approximately a third of a million head.

#### REVIVING THE INDUSTRY

When the sheep industry attempted to recover after the chaos of the Civil War, the first flock to be introduced was that of Juan Candelaria, in 1866. This flock consisted of seven hundred head and was driven from Cubero, New Mexico, to a ranch site a few miles south of the present town of Concho, in Apache County.<sup>54</sup> During the next few years his brothers, Rosalio, Ambrosio, and Averisto, also brought sheep from New Mexico and settled in the same vicinity. The quality of these sheep was high in comparison with what had been in the country before, since in the original stock brought from Vera Cruz, two-thirds of a century before, there were four purebred Merinos—three ewes and a black ram.

In a few generations the Candelaria flocks proved to be the best along the Arizona-New Mexican frontier. By the time of the first World War they were noted as well for their mutton quality.<sup>55</sup> Although Juan Candelaria lived in the vicinity of Concho over sixty years (until his death October 15, 1930) his flocks were never molested by Indians, even though his ranges lay directly between the Apache and Navajo reservations.

The next introduction was to the vicinity of Fort Whipple, adjoining modern Prescott. In 1868, James Baker drove a flock overland from California via the Mohave Desert.<sup>56</sup> The undertaking was highly hazardous, and the Indians stole a major fraction of the flock. However, by 1870, Baker had 960 head of sheep in the Chino Valley, and on September 2, 1871, Campbell and Baker of Prescott reported<sup>57</sup> that "up to

that time their flock of eight hundred head had not been molested by the Indians." The previous March, Campbell and Buffum<sup>58</sup> of Chino Valley sent to San Francisco a consignment of wool that brought twenty cents a pound.

Sheep were introduced to the Gila Valley, in what is now Graham County, by Isadore Solomon<sup>59</sup> in 1868. A few migratory flocks from New Mexico also came into the upper sources of the Little Colorado River between 1868 and 1870. In addition, by 1870 several New Mexican operators were grazing in the vicinity of modern Springerville, and were utilizing the high valleys of the White Mountains for summer range. The Indians made several fruitless attempts to dislodge them.

#### COLORADO RIVER CROSSINGS

The Colorado River presented a great barrier to easy importation of sheep from California, but there were five main crossings as one came up the river from its mouth. The first was at Yuma, 176 miles upstream. While this crossing was important during the westward move-

<sup>54</sup> Haskett, "History of the Sheep Industry in Arizona," 19. Candelaria's sheep were descendants of an importation of seventy-one head brought by his maternal grandmother from Vera Cruz, Mexico, to Cubero, beginning in 1799. Two years were required to make the drive, and the flock increased from 71 head to 141 head during the interval.

<sup>55</sup> Sidney Etchegarry, Armour and Company, Los Angeles, California. Interview with author, February 19, 1939.

<sup>56</sup> *Weekly Arizona Miner*, Prescott, December 19, 1868, 3.

<sup>57</sup> *Ibid.*, September 2, 1871, 3.

<sup>58</sup> *Ibid.*, March 4, 1871, 3. John G. Campbell, partner of both Buffum and Baker, was a young Scotchman, entirely unrelated to the brothers—Hugh, Colin, and William Campbell—who later became large operators in Coconino County. Identification by A. A. Johns, Prescott, Arizona, former president of the Arizona Wool Growers' Association, February 10, 1941, in interview with author.

<sup>59</sup> Haskett, "History of the Sheep Industry in Arizona," 20.

ment, it was not of much use to drivers importing sheep to Arizona, except for the few that went up the Gila. Most of the flocks that entered the region now Pima and Graham counties came from New Mexico, but those from California that crossed at Yuma ended up here too. Some even passed Tucson to Tubac in the Santa Cruz Valley and thence went over into the Patagonia country.<sup>60</sup>

Nearly 150 miles farther up the Colorado was the crossing at La Paz, seven miles above modern Blythe. In the late seventies the river changed its course and the ferry was moved downstream to the approximate location of the present Blythe Bridge. Few sheep crossed here on account of feed difficulties in approaching and leaving the river, but the crossing was used for freighting to the mines from the Colorado River steamers and some of the early drivers of horses and mules also utilized it.<sup>61</sup>

The main crossing was at Hardyville, 513 miles from the mouth of the river and 357 miles above Yuma. Probably 90 per cent of the sheep from California crossed here. The ferry really connected Nevada and Arizona shores, as it was seven or eight miles north of the point where Arizona, Nevada, and California meet, and at least six miles from the nearest point in California. Hardyville was the river port from which the army supplied its troops in northern Arizona, and a stage line was operated between Hardyville and Prescott. It also provided a convenient shipping point for wool from the northern part of the territory in the seventies, before the railroad came through.

Farther up the river were two other crossings. One was the Scanlon Ferry (later called Grigg's Ferry) used by the Mormon immigration. Still farther, almost due north of Kingman, was Pearce's Ferry, which Mormon flockmasters patronized in leaving Utah for

seasonal grazing. Neither exercised much influence in equipping Arizona with sheep, however.

#### "FILAREE"

In 1870 and 1871 drouth in southern California forced a number of flockmasters to drive into Arizona to graze the virgin mesas. Not only did these sheep improve the quality of the flocks within the territory, but they brought in their fleeces large quantities of the seeds of the herb, alfileria. The present "filaree" plants of Arizona ranges can be traced to this circumstance. Many of these flocks were sold to Arizona operators and remained permanently. Two large Basque-owned flocks from California got as far east as the Santa Catalina Mountains near Oracle at this time,<sup>62</sup> but apparently they had left the district by 1875.

#### AMERICAN RANCH

The best known sheep ranch of the seventies was the American Ranch of J. H. Lee, near Prescott. Lee's immigrating party was the third to settle here, arriving from the East in 1864 after many hardships, though it lost no personnel en route. The ranch became a rendezvous for the military in Arizona. Bodies of cavalry on the march were able to obtain corral facilities, feed and water for their mounts, and sleeping accommodations or bivouac areas for the men. Such places were popularly known as "road stations," and American Ranch soon became a stage and mail stop, which gave it considerable distinction. Hay, grain, wood, and water

<sup>60</sup> *Arizona Weekly Citizen*, April 3, 1875.

<sup>61</sup> A. A. Johns, Former President, Arizona Wool Growers' Association, Prescott, Arizona. Interview with author, February 10, 1941.

<sup>62</sup> Haskett, "History of the Sheep Industry in Arizona," 20.

were in abundance at all times. "Lee came from the same township (in the East) as General Crook (then commanding Fort Whipple), and was reported to have a lead-pipe cinch" in this new region.<sup>63</sup> He put up a good-sized store building and stocked it with the best supplies.

The first sheep were placed on the ranch in 1871,<sup>64</sup> and Lee became an active promoter of the industry. In the summer of 1873 he purchased a dozen well-bred, fine-wooled rams in the East and brought them to his ranch to improve the flock. These rams were trailed across country from New Mexico with a band of a thousand commercial sheep that he also imported.<sup>65</sup> Lee gained great prestige in the Territory<sup>66</sup> by slaughtering "a Spanish wether" in 1875 that dressed a fifty-seven-pound carcass.

Just before Christmas in 1877, Lee reported that he had driven his sheep to the Little Colorado, where he planned to shear the next spring and ship the wool east. The cost of shearing was only about half as much as in Yavapai County and tools were much cheaper. Albuquerque buyers were taking all the wool they could get, paying cash, and the prices at Missouri River points were the same as in San Francisco. Lee wrote:

I have been engaged in wool growing for four years and am \$1,600 out of pocket. I believe this is the experience of all engaged in sheep raising on this side of the mountains. (His letter was written at American Ranch.) That side (east) is the only suitable place I have seen in Arizona. All are getting over there—Foster, Frank Hart, and Smith Bros. are there; Joe Marlow is on the way, also Charlie Stevens with his band from Hackberry. I think the day is not far distant when the sheep owner may become a respected man; not held out at arm's length, surveyed, and smelled of, when he asks a favor.<sup>67</sup>

The Indians soon realized the strategic importance of American Ranch and began harassing it. Once they ran off the single guard and burned the whole

place, including \$1,300 in bank notes. However, Lee managed to obtain further credit, and rebuilt and restocked the store and ranch. He cultivated corn and barley, and then leased the property to another operator. In the winter of 1875–76 the Indians again attacked the station. The lessee escaped, but planned a diabolical revenge.<sup>68</sup> He introduced heavy doses of strychnine into a sack of flour, and left the sack handy for all comers inside the open door. A group of soldiers under Scout Dan Leary found twenty-four dead Indians and fourteen more very sick in the nearby camp. Locally it seemed a case of frontier justice but "the affair raised an awful fuss among Indian lovers of the East."<sup>69</sup>

#### ARIZONA'S SEVENTIES

However, Indians were never the trial in the Prescott area that they were in southern and eastern Arizona. The establishment of Fort Whipple in 1863 curbed the lawlessness of the tribes thereabout, even though it did not completely control them. The more distant tribes were harder to handle than those nearby, and the Apaches that raided the Stevens and Bashford flocks in 1872 came from the eastern part of the Territory.

That same year of 1872, Manuel Yrissari<sup>70</sup> trailed a band of twenty-five hundred head safely across the Navajo country in mid-July, from New Mexico to the Prescott area. He was unmolested by Indians but complained of the scarcity of water between Albuquerque and Fort

<sup>63</sup> Orick Jackson, *The White Conquest of Arizona*, 45.

<sup>64</sup> *Weekly Arizona Miner*, January 8, 1875.

<sup>65</sup> *Arizona Citizen*, September 13, 1873.

<sup>66</sup> *Weekly Arizona Miner*, January 8, 1875.

<sup>67</sup> *Ibid.*, December 21, 1877.

<sup>68</sup> Will C. Barnes, "Arizona Place Names," *General Bulletin No. 2*, January 1, 1935, 17.

<sup>69</sup> Jackson, *The White Conquest of Arizona*, 46–47.

<sup>70</sup> *Weekly Arizona Miner*, July 27, 1872.

Wingate along the newly opened route, although fresh rainfall tempered his difficulties before he reached Fort Whipple.

Even at the height of the Apache raids near Tucson small bands of sheep were profitable in that region. Charles Marsh,<sup>71</sup> operating under the name of Marsh and Driscoll on a small establishment northeast of the city, reported that he had grossed nine hundred dollars from four hundred ewes in two years.

By 1873 the Prescott country was becoming very active in sheep. In August, W. A. Deering<sup>72</sup> arrived in the Mint Valley with three thousand head from California. The animals were purchased from a grower named Slaughter, who was a neighbor and one-time partner of Henry Dalton of Azusa—one of the best known of southern California sheepmen. About the end of November Joseph Curtis, a settler on Granite Creek, returned from the coast with a thousand head<sup>73</sup> while early in the next month a California-bred band of two thousand head was located in the Kirkland Valley south of Prescott.<sup>74</sup>

Campbell and Buffum again shipped wool to San Francisco the next spring (1874), delivering about four thousand pounds that brought thirty cents a pound.<sup>75</sup> Their success established the regular pathway for shipping wool out of the Arizona country until the railroad arrived. Hodge reports the shipment of 120,000 pounds from Hardyville in 1875.<sup>76</sup> The usual route after 1877 was downstream from Hardyville to Yuma, and thence over the Southern Pacific to San Francisco.

In the southern part of the state, the firm of Tully, Ochoa, and Company brought a flock of ten thousand head from New Mexico to a range west of Arivaca early in 1874. Tully himself had direct charge of the sheep, while Ochoa managed their extensive freight-

ing business. The chief disadvantage they faced in their sheep operations was the water problem, the sources being shallow and many of the wells six feet deep or less.<sup>77</sup>

This firm was seldom molested by Indians, nor were its pack trains and wagons disturbed, despite the fact that they came directly through country ravaged by Geronimo's band of Apache outlaws. Other trains and ranches were looted and burned, with the charred ruins of rolling stock or outbuildings and the remains of drivers, guards, and herders giving mute testimony of Geronimo's vigilance and might. Three decades later it was learned that Don Esteban Ochoa had saved the life of one of Geronimo's subchieftains by means of a powerful cathartic, the much-used jalap of pioneer days. From that day forward, Geronimo was Ochoa's friend and protector.<sup>78</sup> Later in the spring of 1874, Tully, Ochoa, and Company brought an additional flock of forty-five hundred head from New Mexico. These were turned out on the Arizona range east of Tucson in early April.<sup>79</sup>

Another of Arizona's leading sheep pioneers became active in 1874. About mid-April Governor Safford and the Carr brothers brought some high quality flocks from California to the Gila River country.<sup>80</sup> The number in the first band was not stated. On May 15, however, a flock of fifteen hundred head in charge of Charles Horn and belonging to

<sup>71</sup> *Arizona Citizen*, May 17, 1873.

<sup>72</sup> *Ibid.*, August 23, 1873.

<sup>73</sup> *Ibid.*, November 29, 1873.

<sup>74</sup> *Ibid.*, December 13, 1873.

<sup>75</sup> *Ibid.*, July 25, 1874.

<sup>76</sup> Hiram C. Hodge, *Arizona As It Is*, 210.

<sup>77</sup> Carlos Ronstadt, Tucson, Arizona. Interview with author, February 18, 1940.

<sup>78</sup> *Arizona Citizen*, February 17, 1940.

<sup>79</sup> *Ibid.*, April 4, 1874.

<sup>80</sup> *Ibid.*, April 25, 1874.

Governor Safford reached the Valley.<sup>81</sup> A week later the *Arizona Citizen* carried a full description of the well-bred animals brought in, by both Governor Safford and Larkin W. Carr.<sup>82</sup> In December, announcement was made that Governor Safford had purchased two highly bred Spanish Merino bucks from one California breeder and thirty head of Spanish bucks and ewes from another, the sheep to be delivered during the winter.<sup>83</sup>

The year 1874 was a banner one for sheep importation, flocks coming both from New Mexico and California. On May 6, G. W. Hance brought four hundred sheep into Pima County from the East,<sup>84</sup> while George H. Stephens and Lord and Williams introduced flocks from the West. The Pima Indians were placed on a reservation that spring, and the minor pilfering that had annoyed small flock owners came to a close. Thereafter the flocks in Pima County multiplied rapidly. In December the *Arizona Citizen*<sup>85</sup> announced the coming of several drives from California. These included a band of two thousand head trailed overland by Williamson and White of Fairfield, California, and thirteen hundred introduced by Maloney, Craft, Garrett, Steele, and Anderson.<sup>86</sup>

Two prominent sheepmen came into the picture in 1875. William Ashurst (father of Senator Henry F. Ashurst) brought a large flock from Nevada, while in early December John Clark crossed Hardy's Ferry into Mohave County with three thousand California sheep. Clark had started from Kern County in that state with five thousand head but had lost nearly half the band in a California snowstorm. He wintered them on Big Sandy Creek, moved them to a better range in the vicinity of Bill Williams' Mountain in the summer of 1876, and in 1877 turned them into the long narrow cleft between Elden and Mormon Moun-

tains north of modern Flagstaff. This is now known as Clark's Valley.<sup>87</sup>

By 1877 Hodge was able to write of the general sheep producing regions of the Territory:

The section of the country watered by the Chiquito Colorado is especially favorable to sheep raising, as is also the region of country around Prescott and thence to the north in the region of . . . the San Francisco and Bill Williams Mountains. The same can also be said of the country south of Tucson embracing . . . the Santa Rita, Patagonia, Huachuca, Whetstone, Dragoon, and Chiricahua Mountains, and in the contiguous valleys.<sup>88</sup>

General Kautz, who commanded the Military Department in Arizona in 1877, commented on the large flocks held by the Indians—flocks that the census takers failed to enumerate. Not only were the bands operated by the Moquis and Navajos "immense," but Canyon de Chelly particularly impressed him because of its "corn fields, peach orchards, and large flocks of sheep and goats."<sup>89</sup>

Movement of sheep by rail to the Arizona boundary began to gain popularity in 1877. General Banning brought several thousand sheep by rail to Yuma, and after unloading and resting a few days started them up the old route via the Gila River for the Santa Cruz Valley. The great advantage in the rail shipment part of the way was the reduction in mortality and the holding of the sheep's condition longer. In one shipment of 1,250 head, only one animal was lost before arriving in Yuma. In a second

<sup>81</sup> *Arizona Citizen*, May 16, 1874.

<sup>82</sup> *Ibid.*, May 23, 1874.

<sup>83</sup> *Ibid.*, December 19, 1874.

<sup>84</sup> *Ibid.*, May 6, 1874.

<sup>85</sup> *Ibid.*, December 4 and 5, 1874.

<sup>86</sup> *Ibid.*, April 5, 1875.

<sup>87</sup> Haskett, "History of the Sheep Industry in Arizona," 21.

<sup>88</sup> Hodge, *Arizona As It Is*, 56.

<sup>89</sup> Richard J. Hinton, *Handbook of Arizona*, 299.

lot of 2,000 head, only seven were lost, and these from overcrowding in the cars.<sup>90</sup>

The quality of sheep improved as one went from east to west, despite the efforts of men like Candelaria, Governor Safford, Larkin Carr, and others to bring in high quality stock. Hamilton called sheep of Arizona<sup>91</sup> "a poor lot, reduced to mere runts by interbreeding." Yet these sheep had several valuable characteristics. During the centuries in which many assumed that they had been degenerating, they had learned to rustle for food and water, to resist storms, and to elude wild animals. They provided Arizona sheepmen with an excellent foundation herd thoroughly adapted to the environment and climate.

Moreover, the seventies offered better prospects for the Arizona wool grower, for Hamilton stated also that a "better grade has been driven from California, and by careful crossing the Arizona sheep will soon compare favorably with any in the Rocky Mountains."<sup>92</sup>

#### THE DAGGS BROTHERS

The year 1876 introduced the Daggs Brothers, founders of one of Arizona's best known flocks. In the spring of that year, J. F. Daggs settled with some California sheep on Anderson Mesa at Ashurst Run. W. A. Daggs took a similar flock to Silver Creek in Apache County. These sheep were purchased from Jotham Bixby and associates of Long Beach, and from the well known Basque breeder, Domingo Amestoy, of Los Angeles. The Daggs added to these flocks by a draft from the Hunings of Los Lunas, New Mexico, and Holbrook, Arizona. About this time a third brother, P. P. Daggs, joined them and the three formed Daggs Brothers and Company, which continued until 1890.

In the spring of 1877 they traded their

Silver Creek ranch to the Hunings for three thousand wethers which finally yielded them two dollars per head. They then moved to Chavez Pass where they obtained water from a primitive well associated with the ruins of a prehistoric pueblo. During the early eighties they established their headquarters at Flagstaff, started handling part of their sheep on shares, and built their flocks up to fifty thousand head.<sup>93</sup>

Feeling the need of better blood, the Daggs Brothers pioneered in the large scale introduction of improved rams. In 1882, they purchased sixty-six purebred Spanish and French Merino rams,<sup>94</sup> from the Vermont Merino Sheep Breeders' Association, at costs ranging from one hundred to six hundred dollars per head. These bucks were very carefully selected, some of them having yielded forty-pound fleeces from a twelve-month's growth. They were placed on the range to mate with the best of the California ewes.

Choice young range rams were produced by this combination, and in 1886 a thousand head were sold to other Arizona breeders at six to twelve dollars per head. The Daggs advertised their sheep widely in the Arizona papers and developed show flocks whose rams swept the premium lists at the state fairs in Albuquerque from 1884 to 1886. Following the Vermont stock, purebred rams were introduced from other sections of the country.

When the Arizona Wool Growers' Association was organized in 1886, P. P. Daggs was elected treasurer, and by 1889 he was acting as secretary. In 1892, J. F. Daggs was elected secretary, and in 1894 he was made president. According to the

<sup>90</sup> *Arizona Weekly Star*, Tucson, July 12, 1877, 3.

<sup>91</sup> Patrick Hamilton, *Resources of Arizona*, 285.

<sup>92</sup> *Ibid.*

<sup>93</sup> Haskett, "History of the Sheep Industry in Arizona," 21.

<sup>94</sup> *Ibid.*, 24.

*Tombstone Prospector* of June 6, 1888, "Daggs Brothers of Flagstaff are the largest wool shippers in the state." However, the three brothers broke up their partnership in 1890 to operate separately, and soon each of them sold out and retired. With these acts the breeding of fine-wooled sheep in the Territory took a sudden slump, as few had the nerve to face the weakened markets of the mid-nineties.

#### THE EIGHTIES

Arizona was not a busy sheep country, however, as the eighties opened. The Census showed only 76,524 head, but interest was developing. Gordon<sup>95</sup> records a movement of ten thousand head from Arizona into New Mexico, obviously an eastward movement toward market, while drives of approximately eighty thousand head were made *into* the territory. Thirty thousand of these came from New Mexico, fifteen thousand from Utah, and thirty-two thousand from Montana. These latter were California sheep that had spent two years in Montana and then had been trailed to Apache County via Utah.

One interesting change in routine was the gradual abandonment of the practice of shearing twice a year. Acting Governor Gosper in 1881 reported that sheep were shorn twice a year but that they yielded only six pounds annually.<sup>96</sup> Within two years reports were based on single shearings annually.

Marketing facilities for wool and slaughter sheep furnished the most important handicap of the eighties. From the northeastern part of the state, wool was hauled by ox team all the way across New Mexico and the Raton Pass to Trinidad, Colorado, where the railroad gave the quickest connection to eastern markets. The alternative was to haul to Hardyville, or in some instances La Paz or Yuma and ship by flatboat down the

Colorado to a Mexican port (usually Port Isabel) where it was trans-shipped to freighters that circled the Horn to Boston.

The completion of the Atlantic and Pacific Railroad (now Santa Fe) across northern Arizona in 1883 definitely located the sheep industry in the northern part of the state by providing convenient market outlets. Every alternate section of land along a strip thirty miles wide on each side of the track was included in the government grant to the railroad. For ten miles beyond the thirty mile strip, north and south of the right-of-way, lay the "lieu lands" granted to replace lands already in private ownership inside the strip awarded to the railroad.

Much of the eighty-mile belt thus created was rapidly sold to stockmen and lumbermen, but the railroad also sold land to prospective settlers and farmers. This eventually found its way into the hands of sheep and cattle owners. The homestead laws of that era in American history were inadequate to care for farmers who tried to grow crops in the light rainfall areas of the country, and the lands usually reverted quickly to pastoral uses.

When the railroad first came in, Silver Creek was the center of the sheep industry, south of Holbrook and along the northern edge of the White Mountains. Two large firms of operators that ranged near here were the Bly Brothers and Sawyer and Otonto, but the advent of the railroad led them to shift their headquarters to Winslow. Gradually shearing pens were established along the rails, and the eastward shipments of wool reached new highs as the decade ended.

<sup>95</sup> Gordon, "Report on Cattle, Sheep, and Swine," *Tenth United States Census*, 3:1057.

<sup>96</sup> John J. Gosper, *Report of the Acting Governor of Arizona Territory to the Secretary of the Interior* (1881), 16.

Many of the men who came into northern Arizona with the construction crews remained in the sheep industry. Foremost among them should be mentioned the Campbell Brothers. They arrived in Arizona in 1882 when the Atlantic and Pacific reached Flagstaff,<sup>97</sup> and entered the sheep business in 1884. All three brothers became very prominent in sheep association work, both Hugh and Colin being directors of the National Wool Growers. Hugh was also vice president of that organization as well as president of the Arizona Wool Growers. Colin Campbell was vice president of the latter and William was a director.

The Campbells, Riordans, E. S. Gosney, John Noble, the Locketts, D. M. Francis, J. Reimer, Daggs Brothers, and Dr. E. B. Perrin established headquarters at Flagstaff toward the end of the eighties,<sup>98</sup> and gradually shifted the sheep center of the Territory to this point from Silver Creek in the east and Prescott in the west.

On October 1, 1886, the Arizona Sheep Breeders' and Wool Growers' Association was organized with Hugh Campbell as president and Walter J. Hill secretary, and with headquarters in Flagstaff. The purposes of the Association were defined "to promote the breeding and use of purebred rams, to handle wage scales for herders and shearers, to hold an annual rodeo, to go through each flock, remove strays, and return them to their owners, and to render general assistance to the industry on all matters of common interest."

Throughout the early part of the decade, the grade of sheep was being constantly improved by the introduction of Merino, Southdown, and Cotswold rams,<sup>99</sup> though most of the sheep introduced by the settlers along the Atlantic and Pacific were the so-called "common sheep" of New Mexico and Colorado,

supplemented to some extent by the tall, long-legged, loose-fleeced "Navajos." In addition to the efforts of Daggs Brothers, Clark, Ashurst, the Campbells, and Saford and Carr to improve the quality and yield of wool, Henry Fulton of Flagstaff was making serious efforts to raise the mutton quality as well. Fulton introduced rams of the various Down breeds, as well as a muttony type of Rambouillet. But the augmentation of mutton character required a lot of hereditary qualities difficult to support on the Arizona range, and despite wide interest the effort for real dual-purpose sheep had to be abandoned.

Governor Tittle reported numerous sheep facts of interest in the mid-eighties. In 1883 sheep were worth three to four dollars per head and numbers were increasing rapidly.<sup>100</sup> The clip that year was approximately 2,400,000 pounds, and the average price was twenty-two cents, ranging from twenty to twenty-five cents in the wool markets of the East. Two years later he reported that Merinos shearing eight pounds per head were bringing \$3.50 apiece, while the improved Mexican strains were changing hands at \$1.50 to \$2.00 per head.<sup>101</sup> Arizona wool was then selling for only sixteen to twenty-one cents in the East.

The freight rate from Flagstaff to Philadelphia was five cents a pound, so that the net return to the grower was considerably diminished as compared to the market quotation. For example, the charge amounted to a thousand dollars on a carload of twenty thousand pounds. During the eighties the area

<sup>97</sup> Johns, Interview, February 10, 1941.

<sup>98</sup> *Ibid.*

<sup>99</sup> Hamilton, *Resources of Arizona*, 85.

<sup>100</sup> Governor F. A. Tittle, *Report of the Governor of Arizona to the Secretary of the Interior* (1883), 6.

<sup>101</sup> *Ibid.*, (1885), 9.

of highest sheep population shifted westward. Throughout the early part of the decade the greatest concentration was in Apache County, but at the close it was in Coconino County.

#### THE NINETIES

The sheep industry was booming in Arizona in 1890 although the Census showed only 102,427 sheep. Private estimates throughout the mid-eighties had regularly credited the Territory with two-thirds to three-quarters of a million sheep, and the Census failed to include the rather large flocks in Navajo and Hopi hands. The publicity and advertising of the Atlantic and Pacific Railroad was more effective in inducing livestock operators to come to the Territory than in attracting farmers and homesteaders. With very few artificial barriers in existence, flockmasters could move their bands freely from winter ranges in the Gila, Salt, Verde and Little Colorado valleys to high summer pastures in the San Francisco, Bill Williams, Mogollon, and White Mountain ranges. Hence there were incursions of flock-owners from New Mexico, Colorado, Utah, Nevada, and California. These aroused opposition from the Arizona cattlemen who were unable to get the summer range they required in the southern part of the territory.

Clashes were especially numerous along the Little Colorado, where the great Aztec Land and Cattle Company (the Hashknife outfit as named from its brand) broke into established sheep territory, and where in the vicinity of Canyon Diablo, the cattlemen tried to bar flocks from entering the Tonto Basin. But there was little bloodshed, with the exception of the Pleasant Valley War (the Graham-Tewksbury affair). This was practically a private feud in which the Tewksburys used flocks obtained on a share basis from Daggs

Brothers to goad their enemies into taking the first offensive steps.

Elsewhere sheep were pushed aside, confined behind deadlines, or actually clubbed or driven over cliffs to their death. Yet it took only a few years for Arizona husbandmen to learn that their northern ranges were more productive when sheep were grazing them, while their southern ranges were better adapted to cattle.

As the nineties arrived, this question was pretty well settled and numbers of men of high standing and ability were shifting over to sheep production. According to Minto it cost about seventy-five cents a year to run sheep. Returns on ewes were about \$1.50, when there were included the clip and the income from lambs weaned (on the average by three out of four ewes in the breeding flock).<sup>102</sup>

In 1891 approximately thirty-five thousand head were shipped out of the Territory, half moving east and half west. They were principally wethers weighing 95 to 115 pounds, and they sold f.o.b. local loading points at \$3.00 to \$3.50 per head. Most of the wool crop of 1891, five million pounds, was shipped east, although throughout the early eighties the wool had moved to the West Coast. Of the 1891 clip, 4,439,000 pounds were handled by the Atlantic and Pacific Railroad, and 384,000 pounds by the Southern Pacific.

The era of high profits and easy sailing in the industry came to an abrupt end in 1893. With the wool producer on a free-trade basis, sheep values were promptly cut in half. The *Coconino Sun* commented on the situation as follows:

Arizona represents a million fine-wooled sheep.... Before the free trade party gained the

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<sup>102</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 943-45.

ascendancy these million head of sheep could have been disposed of readily at \$3,000,000. Today under threatened free wool these same sheep could not find a buyer at more than a dollar and a half a head, or \$1,500,000. Our wool clip in 1892 brought us \$840,000. We realized from a greater clip in 1893, \$280,000, all of which represents a grand loss of \$2,000,000, and the end of it is not yet with blighted hopes for the future.<sup>103</sup>

Before the panic Arizona wools were selling in local markets at twenty-two to twenty-seven cents per pound, but in 1893 they dropped on eastern markets to from seven to thirteen cents a pound.<sup>104</sup> The price of shearing declined from ten cents to five cents per head, and herders' wages shrank from between forty-five dollars and forty dollars in 1892 to fifteen to twenty-five dollars per month in 1894. Wool had to be sold on consignment, and sheep, except animals sold for immediate slaughter, were transferred to others on credit.

The depressed markets continued through 1896, but the restoration of protection for the wool industry resulted in new growth and expansion in Arizona. Sheep items again began to be printed in the papers. In January, 1897, the *Tempe News* reported that forty thousand head of sheep were to be sheared in the Salt River Valley.<sup>105</sup> A few weeks later *The Oasis* estimated the Mexicans were running 120,000 head around St. Johns.<sup>106</sup>

In early May the *Tempe News* stated that H. C. Yeager of Maricopa County was shipping ninety bucks from the East valued at twenty-five hundred dollars. A week later the same paper reported their arrival at Kyrene—fine-wooled Merino rams from Iowa.<sup>107</sup> The middle of May, "Reddy" Vandervoort loaded two hundred thousand pounds of wool in a single week on the Atlantic and Pacific Railroad.<sup>108</sup> During the previous entire season there were loaded at Holbrook 1,120,000 pounds and eighty-five

carloads of sheep averaging 265 head per car, at \$3 per head.

By early 1898 the Santa Fe, Prescott, and Phoenix Railroad completed shearing pens and dipping vats near Prescott with a daily capacity of eight thousand head, and by 1899 shearing had taken on its modern pattern. In late January, forty-five men left Phoenix for Goddard's Corral in the Salt River Valley to shear seventy thousand head that would be driven there for that purpose. William Tyson of Peoria was also employing a thirty-seven-man crew at his shearing pens twenty miles northwest of Phoenix.<sup>109</sup> In March he moved his crew at Antelope, below Mayer on the Black Canyon road, and announced that he could shear twenty thousand to thirty thousand head to finish the season.

March, April, and May were normally the shearing months but shipments of wool often extended over into June. By the end of the nineties, consignments to San Francisco and St. Louis had declined decidedly. The bulk of the wool was sent by rail to Boston and Philadelphia. The *Arizona Miner* announced that more than one million pounds of wool had been shipped from the Salt River Valley and that two hundred thousand pounds remained to be moved.<sup>110</sup>

#### THE EARLY TWENTIETH CENTURY

The early part of the present century was characterized by the appearance of several sheepmen whose names are still well known; by the establishment of the

<sup>103</sup> *Coconino Sun*, Flagstaff, Arizona, February 25, 1892.

<sup>104</sup> Haskett, "History of the Sheep Industry in Arizona," 33.

<sup>105</sup> *Tempe (Arizona) News*, January 30, 1897.

<sup>106</sup> *The Oasis*, Phoenix, Arizona, March 27, 1897.

<sup>107</sup> *Tempe News*, May 8 and 15, 1897.

<sup>108</sup> *The Oasis*, May 29, 1897.

<sup>109</sup> *Arizona Journal-Miner*, Prescott, January 27, 1899, and March 9, 1899.

<sup>110</sup> *Ibid.*, March 9, 1899.

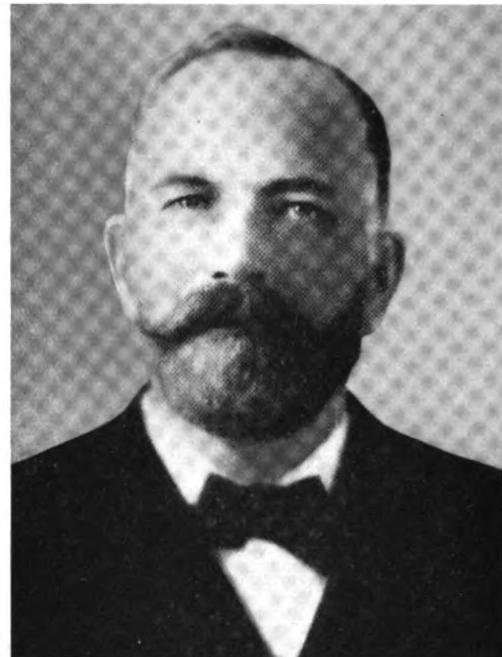


PANEL 60—(Above) William H. Farr, Greeley, Colorado, sheep feeder (pp. 352, 611).

(Above Right) Peter Jansen, extensive Nebraska lamb feeder (pp. 159, 350, 615).

(Below Right) Senator William A. Drake, prominent Fort Collins, Colorado, feeder for market (pp. 355, 610).

(Below) Charles Warren, early-day Fort Collins sheep feeder (pp. 356, 620).



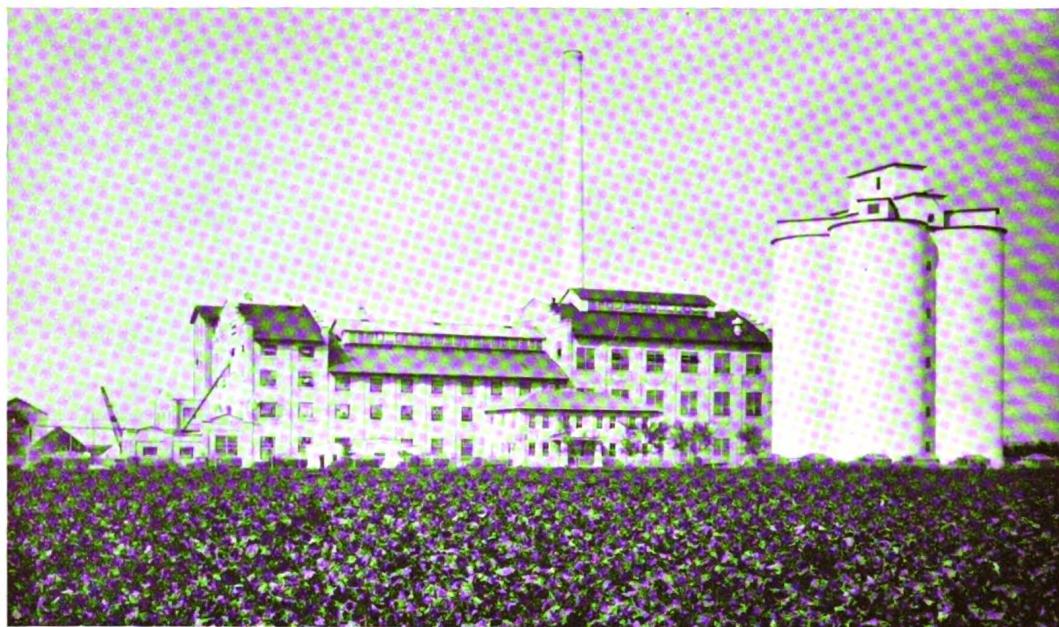


FIG. 61—Holly Sugar Company factory, Sidney, Montana (p. 373). Approximately two hundred thousand lambs were fed on pulp from this factory in the season 1940-41.

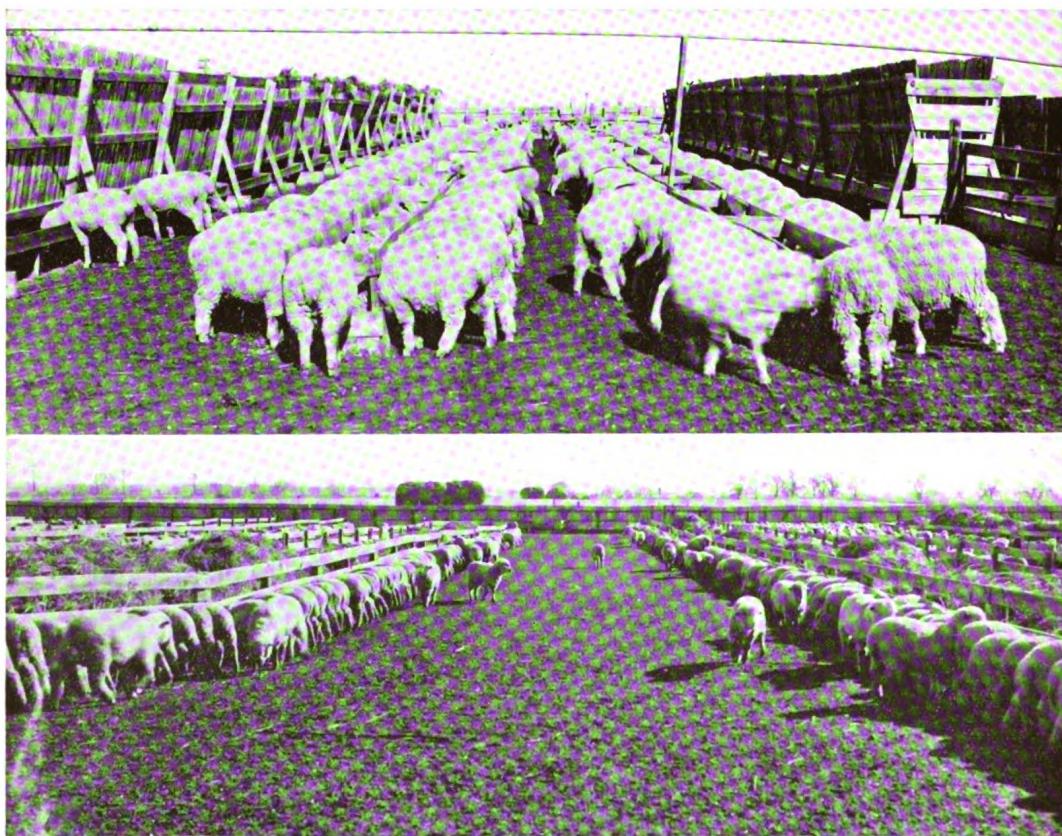


FIG. 62—Lamb-feeding scenes in Colorado. (*Top*) Dried beet pulp racks near Fort Collins. (*Bottom*) Hay and grain racks near Fort Collins. (United States Forest Service.)

national forests; and by the standardizing of the seasonal movement from the summer ranges to the irrigated winter grazing grounds. Seligman became a great center for sheepmen. The flock originally established by J. Q. Adamson that had been so influential in the late eighties and early nineties in improving Arizona quality was carried on by Edgar T. Smith. Smith never operated a purebred flock, but on the thirty-two hundred grade Rambouillet lambs that he purchased from Adamson he crossed purebred Rambouillet rams and was soon furnishing sheepmen all over the Southwest with range rams of high quality.

Another leader from the same region was Charles C. Hutchison. He was the pioneer in using Hampshire crosses on Rambouillet ewes to produce quicker finishing, meatier, larger-framed lambs than the straight Rambouillet produced. A large percentage of Arizona lambs are now of this breeding.

The Sanford Sheep Company had another well known flock, while out of the depression that followed the first World War came the flock of T. J. Hudspeth, founded on Rambouillet ewe lambs procured from the Grand Canyon Sheep Company of Williams. This latter flock in turn was founded on the fine herd of Dent and Sayers of Flagstaff, which was originally based on five hundred purebred Rambouillet ewes obtained from the Baldwin Sheep Company of Hay Creek, Oregon. Joseph Dent and Thomas Sayers were half-brothers of British birth who came into prominence at the opening of the century and who sold out to the Grand Canyon Sheep Company in 1912.

Others of great importance around Flagstaff included E. S. Gosney, a lawyer and banker with extensive sheep ranch holdings, who led the sheepmen's fight for access to the national forests; T. E. Pollock, who became one of the leaders

and prudent counselors of the Arizona sheep industry; and the Babbitt Sheep Company. The latter opened a mercantile business in Flagstaff in 1886 but did not become actively engaged with sheep until the end of the century. Then the Babbits became partners of operators already in the business, backing them by financing their supplies and assisting in, or handling completely, the sale of the products of the flock. None of the Babbits took an active part in the business, except in an advisory capacity, but through their partnerships they at one time controlled approximately fifty thousand sheep. Their principal role was in the marketing of wool which was nearly all sold or consigned to Boston dealers.<sup>111</sup>

#### WINTERING IN IRRIGATED VALLEYS

The original movement in Arizona between the summer ranges in the mountains and the winter ranges in the valleys differed very little from that of other sections of the country. But the settlement of the valleys by farmers dependent on irrigation put a new complexion on the movement. There was not room enough for farmers and flockmasters alike, and the flockmaster could not pay rent on irrigated pastures at a level that would compete with the crop grower. Hence, the custom developed of renting winter grazing on the alfalfa meadows, and later on the grain and cotton stubble.

Apparently this type of movement began in the late seventies. in 1878 Jose M. Redondo<sup>112</sup> of the San Ysidro Ranch (of which 1,550 acres were irrigated) made his first contract with range sheepmen. San Ysidro Ranch was in the southwestern part of the Territory

<sup>111</sup> H. V. Watson, Flagstaff, Arizona, Manager, Arizona Stockman's Loan Company. Letter to author, May 26, 1941.

<sup>112</sup> Hinton, *Handbook of Arizona*.

on the broad alluvial deposits above the junction of the Colorado and Gila rivers. Senor Redondo had spent twenty-five thousand dollars on irrigation before it yielded him a profit, but his decision to attempt the leasing of his alfalfa to growers that season led to other neighbors adopting the practice and a total of forty thousand acres were grazed.

These sheep came from the Prescott country, but during the late eighties a similar movement developed between Apache County and the Salt River Valley. Certain sheep growers in 1890-91 found that wintering in the irrigated valleys increased their returns tremendously—in some cases as much as 100 per cent.<sup>113</sup> Two lambing seasons became possible thereby annually, instead of one, and the increase itself became productive in one year instead of in two.

In the irrigated valleys lambs could be dropped in February instead of May, as was customary in the higher mountain country. Ewe lambs could be grown out sufficiently to breed that fall, so they could drop lambs themselves a year later. Also, February lambs grew large enough to shear a fleece the following autumn. The practice was not developed widely, as there were hazards involved in maintaining the feed balance. But the Scott Brothers obtained an 80 per cent lamb crop in the spring of 1891 in the Salt River Valley, as compared to a usual percentage of sixty in the colder countries. For the winter of 1891-92 the *Phoenix Daily Herald* rhapsodized:

Nearly 15,000 sheep arrived in the Salt River Valley this week and the Scott Brothers are coming with 15,000 more. These comprise a first contingent from Apache County. The Flagstaff country is still to be heard from, and before New Year 75,000 sheep or more will be quietly nipping the rich grasses of Maricopa County. William Amos, of Showlow P. O., Apache County, near Holbrook, was the first shepherd to report in Phoenix on behalf of his associates who united with him in the first drive for winter pasturage. His band numbered about 2,600 bleating wool bearers. Among his party were Brown and Wol-

fell with 3,000 more; Fred Adams with 1,500; J. West with 5,000; and Major Wall with 2,000. Sheepman Kilpatrick has already arrived with a small band from Coconino County.

The route of the Apache (County) shepherds was around the Tonto Rimrock, circling north, west, and southerly about this valley until they finally struck the land of perpetual verdure on the Agua Fria. For some days yet the closely grazed herds will find sustenance by browsing upon the outskirts of our reclaimed desert, only to enter thereafter the luxurious alfalfa feeding grounds that irrigation has provided for thousands of horses, cattle, and sheep when all the rest of the Territory has subsided into barren winter solitude.<sup>114</sup>

The prediction of seventy-five thousand was not overstated. The fall of 1897 saw eighty thousand head driven there for winter feeding.<sup>115</sup>

#### THE HEBER-RENO TRAIL

Various trails connected the Salt and Gila valleys with the San Francisco Mountain and the Prescott-Williams-Seligman areas. Most of them struck across country to the Verde Valley or came down the Agua Fria. A few also used the Hassayampa route, but the pasturage along this stream was too uncertain except in years of heaviest rainfall. In modern days most of the sheepmen take advantage of the railroad service to deliver their bands to the irrigated valley fields.

But the trail between Apache County, the White Mountains, and the Salt River Valley is still in use. More Arizona sheep travel back and forth across this, the so-called "Heber-Reno Trail," than most of the others combined. The return up the trail each spring is impressive. The first task is to cross the western end of Superstition Range—and down Bulldog Canyon to the Salt River. In the early days the crossing of Salt River was a difficult job that usually resulted in

<sup>113</sup> *The Daily Herald*, Phoenix, Arizona, December 5, 1891.

<sup>114</sup> *Ibid.*

<sup>115</sup> *Arizona Journal-Miner*, October 26, 1897.

heavy losses. However, when the Forest Service took control it built the Blue Point Sheep Bridge, which was financed by the sheepmen that used it. The ranger counts the sheep off the bridge and issues permits to graze the trail up through the forest, charging a small fee.

Leaving the bridge, the bands then pass up the Verde west of Stewart Mountain and come out on Adams Mesa paralleling the Bush Highway. A few miles north, the trail strikes the old road east out of Fort McDowell, although the latter has practically been covered by plant growth. It then crosses Bush Highway south of Round Valley and goes through Crabtree Pass into Ram Valley. By this time the trail has gained considerable altitude, for at its upper end is Reno Pass (4,724 feet) over the Mazatzal Range. The passage here is difficult and it has always been the first major obstacle to be met after crossing Salt River.

From Reno Pass the flocks follow up the west side of Tonto Creek, passing old Fort Reno (now in ruins). They cross the Roosevelt-Payson Highway and then move to the east bank of Tonto Creek. Continuing up the Tonto, they cross the Sierra Anchas, go down Gun Creek, cross over Spring Creek, go up Walnut, and pass to the west of Pleasant Valley (scene of the feud between the Grahams and the Tewksburys) and Young post office.

Finally they arrive at the foot of the Naegelin Rim. This forces a sharp rise of several hundred feet, after which they pass the head of Colcord Canyon and thence go along Canyon Creek until they attain the Mogollon Rim. This great rim extends one hundred miles across central Arizona, but at the point where the trail goes up it, the Rim forms the steep southern face of the mountains.

When the top of the Rim is reached the flocks are in the summer sheep range. But before they go farther the flock-

masters usually sort their bands at Mule Spring Corrals. All along the route they will have lost little bunches from their own flocks and will have picked up small bunches from others. When the sorting is completed, the flocks spread out. Some go past Heber to the Apache National Forest, others to the White Mountain Indian Reservation, and still others to the public domain between Snowflake and Springerville.<sup>116</sup>

Arizona probably is more affected by the variations in wool prices than any of the other states. The production of fat lambs is more difficult in this state than elsewhere, and its rival, Nevada, has a slightly better demand for feeder lambs than Arizona because it is nearer the fattening districts in California. Although feeders of light lambs in the irrigated sections east of the Rockies are demanding more "Arizonas" for their winter operations, the fluctuations of the wool market are still more intimately reflected in their sheep totals than in any competing state.

\* \* \*

The pattern of ovine husbandry in the older sheep states has evolved gradually. Each has differed from the rest of the country in some striking particular. New Mexico preserved to the present and adapted to modern conditions the *partido* system that underlaid Spanish sheep culture in the Southwest. Arizona worked out a scheme of winter grazing on the crop stubble and the alfalfa of the irrigated lands. Utah demonstrated and adopted the wintering of flocks on the almost waterless deserts. European nations evolved breeds to meet seasonal and local conditions. Americans developed systems of management that made existing breeds efficient under differing and highly specialized conditions.

<sup>116</sup> Hollis B. Palmer, "Great Sheep Drive," *Arizona Highways*, 27, No. 10 (October, 1941) :18-19 and 39-40.

*Wilder'd o'er the waste,  
The shepherd stalked gigantic!  
His flock so halting paced!  
His dogs, with thirst so frantic!*

—Anonymous—Quoted in  
Walter Johnson's "Talks with Shepherds"

\* 13 \*

## Era of the Great Trails

A HALF-CENTURY of tradition comes from the Texas cattle trails, with their cowboys and longhorns. The great sheep drives from California and Oregon, however, have been veiled in obscurity. The heyday of the latter stretched over three decades, and the rush of their hoofs fully equaled that of the more widely publicized cattle. Certainly the flavor of the frontier was just as piquant. Adventure and adversity marked the way for the cowman "pointing them north" no more vividly than they met the flockmaster "trailing them east." To the perils of flooded rivers, stampedes, outlaws, and Indians, which spiced the routine of the cowboy, the flock driver added the hazards of poisonous herbage, wolves, bobcats, coyotes, and eagles.

Terrain which the flockmaster traversed contained such broad intervals without water, such vastnesses of sand, alkali, and sage, that horses and cattle made its passage only with great difficulty. When mixed bands of the three species left the Coastal States, the horses led the way for the first few hundred miles, with the longer-striding cattle in front of the sheep. Then the feet of the heavier animals became tender, and they had to rest at the water holes to rehydrate their tissues and regain their flesh. But while the larger stock recuperated, the sheep went on, nibbling grass or "browse" with each step. To the sheep alone were

endowed the faculties that permitted efficient crossing of the great areas lying between the Pacific States and the grassy ranges in the upper basins of the Missouri and Arkansas drainage systems. Characteristically they became the first<sup>1</sup> to reach that hallowed spot of western romance, "the end of the trail."

\* \* \*

The era of the great trails began when the direction of the drive changed from westward to eastward. It was catalyzed by the completion of the Pacific railroads which bound the two coasts together, and was guaranteed by the intervening grasslands, previously unusable for domestic livestock. The interval it covered spread over the terminal third of the last century, its final drives coinciding with the close.

Roughly speaking, the days of the great trails break into three periods—1865 to 1880, when the bulk of the drives were breeding sheep; 1880 to 1885, a period of transition; and 1885 to 1901, when the great majority were wethers. Throughout the two decades in which breeding flocks spread over the mountain states, ewes with lambs were seldom, if ever, driven. Newborn lambs were usually killed at birth. Ewes trailed for stocking purposes were practically all yearlings or dry two-year-olds, and hundreds of thousands of them crossed

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<sup>1</sup> Brackenbury, Letter, March 19, 1941.

the great trails during the first half of the movement. Lambs and ewes required a fine quality of grasses, wethers could eat coarser growth and "browse," while the young ewes fell between these two categories in their requirements.<sup>2</sup>

During the first period, trail bands came quite largely from California; during the last period, almost entirely from Oregon and the Northwest. The broad movement from California was the chief agency in populating the mountain states with breeding flocks. The drives from Oregon were the prime factor in establishing the great feeding industry in the irrigated districts.

The California trail herds were derived mainly from the Mexican-Spanish ewes, improved by the purebred bucks that entered California on the heels of the gold rush. A few California herds were driven into Idaho and Montana in 1862-63 to provide mutton for the miners of the Salmon River country or in the Bannock and Virginia City districts. In 1865 Major G. G. Kimball of Red Bluff drove a flock to Virginia City, Montana,<sup>3</sup> which was entirely utilized for mutton. Unquestionably, bands like these had no connection with later sheep history, as only a very few ewes were retained, too thin for slaughter. Irregularly they may have dropped a lamb, but usually they hung around the mines until their teeth fell out and their ancient gums could no longer pull the grass their bodies needed.<sup>4</sup> However, an occasional band survived elsewhere. An eastern mining engineer, G. C. Johnston, in 1864 brought a breeding flock to Silver City in southwestern Idaho. It came from the Jordan River Valley in Oregon and reputedly had been driven there from California.<sup>5</sup>

Drouth in southern California in the mid-sixties (1862-65) stimulated driving into Arizona. A few California flockmasters trailed into western Arizona to

try the grasses of its virgin mesas. No movement of a permanent nature took place, though, until James Baker in 1868 pushed a flock across the Mojave Desert to the Chino Valley north of modern Prescott and Fort Whipple. With each succeeding year the drives increased. From 1870 forward, sheep from California gradually covered the whole western area of the state, especially from present-day Winslow westward throughout the Flagstaff-Jerome-Prescott-Seligman country.

In 1866 Major Kimball trailed a large band across Idaho and Wyoming, all the way to the Missouri River. On this expedition he traded and sold sheep for mules which he drove back to Sacramento and turned at a profit.<sup>6</sup> The echoes of the Civil War had hardly quieted, but Kimball found an active demand for breeding sheep all the way across. On this he founded the big drives later handled or financed by himself and his partners.

Out of southern California in 1870 there came a stolid German, en route for Montana. No one seems to have preserved the record of his arrival, but Mary Austin writes picturesquely of his departure:

Sanger . . . went up like a patriarch with his family in wagons, his dogs and his herders, his milch cows, his saddle horses, and his sheep in bands. When they came by living springs, there they pitched their camp; when they found fresh pastures, there they halted.<sup>7</sup>

<sup>2</sup> George E. Smith, Buffalo, Wyoming. Letter to author, November 4, 1938.

<sup>3</sup> Quinn, *History of California and Biographical Record of the Sacramento Valley*, 1541.

<sup>4</sup> Henry Sieben, Helena, Montana. Interview with author, January 16, 1935.

<sup>5</sup> M. C. Claar, Secretary, Idaho Wool Growers' Association, Boise, Idaho. Letter to author, April 10, 1939.

<sup>6</sup> Quinn, *History of California and Biographical Record of the Sacramento Valley*, 1541.

<sup>7</sup> Austin, *The Flock*, 57-58.

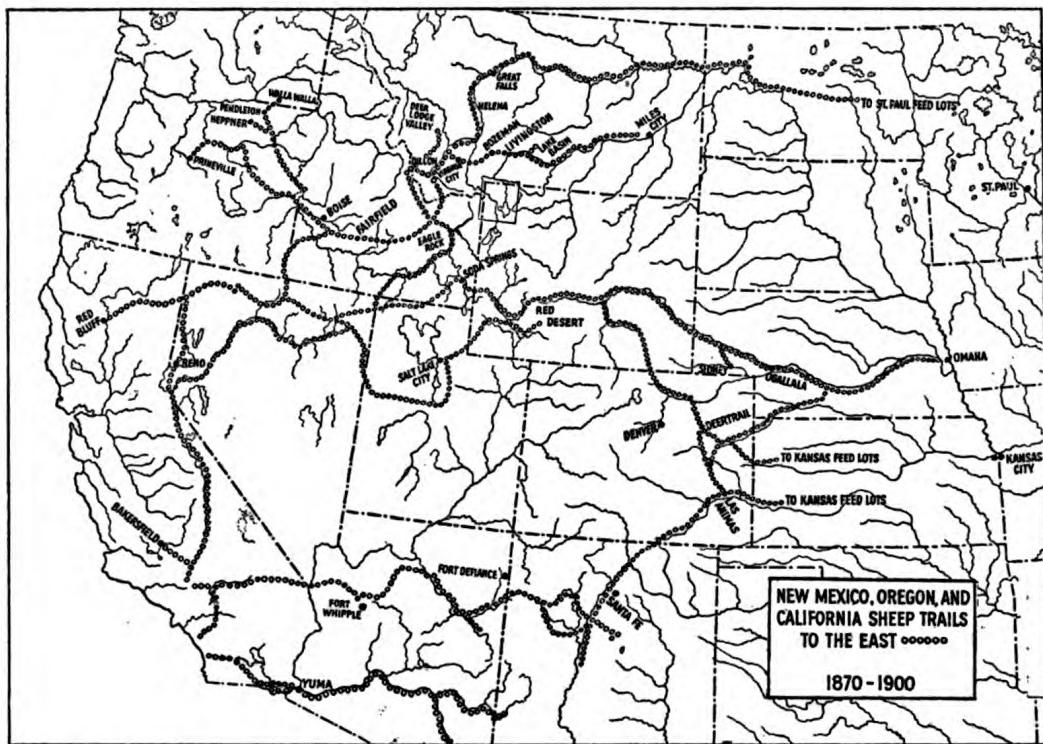


FIG. 63—New Mexico, Oregon, and California sheep trails to eastern feedlots, 1870–1900.

Poindexter and Orr drove 2,467 California sheep safely to Blacktail Deer Creek in southwestern Montana near modern Dillon, in 1871.<sup>8</sup> The next year Montana's long-time dean of the sheep industry, Henry Sieben, sent his brother Jacob to Red Bluff for a flock. Throughout the succeeding decade, California droves continued to pour into that state.<sup>9</sup>

## **ROUTES FROM CALIFORNIA**

Three general routes were used in the drives out of California, the southern, middle, and northern.<sup>10</sup> The southern route is described by Gordon as via the Mojave River and Fort Mojave into Arizona and New Mexico. Actually two routes were followed in this region, the more popular one being across the Mojave Desert to the ferry over the Colorado River at Hardyville. Evidently Mr. Hardy, who operated the ferry and toll road leading eastward, was a gentleman and appreciative of the tolls which

the traffic would bear. In 1875 the *Arizona Miner* carried the following enthusiastic letter:

Prescott, Arizona Territory  
June 20, 1875

## **Editor Miner:**

Allow me through the columns of your paper to say that we drove from California four thousand head of sheep over the toll road known as the Hardyville road, and the toll-gate man charged us eight hundred dollars. This amount, we thought, was more than sheepmen could afford in their efforts to settle this country. We called on Mr. Hardy, and entered our complaint, after his arrival from California, and he voluntarily paid us back four hundred dollars. We feel it our duty to say in behalf of Mr. Hardy that he acted very gentlemanly with us, and we feel as though we could say to those traveling from California that they will find in Mr. Hardy a gentleman and a man that will deal fairly and honorably with them.

Peter Filance.<sup>11</sup>

<sup>8</sup> MSS. Montana State Historical Library, Helena, Montana.

<sup>9</sup> *Helena (Montana) Daily Independent*, November 27, 1937.

<sup>10</sup> Gordon, "Report on Cattle, Sheep, and Swine," *Tenth United States Census*, III:1036.

"Arizona Miner," Prescott, June 25, 1875.

Hardyville was on the opposite bank and some fifty miles up the Colorado River from Needles, California. The toll road led eastward to Hackberry and around the end of the mountains to Chino Creek. The other southern route led from Yuma up the Gila to the Santa Cruz, and up it to the Tucson country and the upper San Pedro Valley.

These two routes were by no means the only southern ones used. In 1872, Arthur G. Anderson of Texas trailed a flock of French Merinos from central California to Taylor and Callahan counties in central Texas. Much of the way he reversed "Uncle Dick" Wootton's route of 1853, crossing Nevada to Salt Lake City and proceeding across western Colorado to the upper Rio Grande. He continued down the latter stream to El Paso and then followed the wagon route toward San Antonio. When he reached the Concho he followed it to a convenient point for crossing over to the Colorado River of Texas and then branched off northward.<sup>12</sup>

A California sheepman passed south of all the established trails. As we have noted before, Antonio Aros in the early seventies started a herd of Arabian horses and a flock of sheep from Azusa, California. Swinging by Redlands, he proceeded in the general direction of San Diego but, before reaching there, turned off to the east via the rim of the Imperial Valley. Crossing the Colorado at Yuma he bore off southeasterly toward Caborca, Sonora, on the Magdalena River, and thence drove due easterly to the Altar. From here he followed up the Altar Valley into Arizona, where he established his flocks and his horses on the eastern slopes of the Baboquivari range, about ten miles north of the border, and a few miles south of Baboquivari Peak.<sup>13</sup>

In 1876, Colonel Stoneroad drove ten thousand head from Merced County, California, to Puerto de Luna, New

Mexico. He followed up the San Joaquin until opposite Fresno, then crossed King's River, the Kaweah, and the Tule, reaching the Kern at Bakersfield. Topping Tehachapi Pass, he went on to Cottonwood on the Mojave River. Across the desert he passed a point below sea level, en route to Union Pass in the "Blue Ridge" Mountains of Arizona—a distance of 150 miles with very little water.

The total trip of sixteen hundred miles required seven and a half months.<sup>14</sup> At the same time that Colonel Stoneroad drove, three other bands totaling 16,500 head were on the trail. Two of them got through safely, those of Pinkerton and Cartner, but the Cosner brothers were robbed and murdered. The next year an approximately similar number crossed the same route in several bands belonging to Colonel Stoneroad, Captain Clancy, Hugo Zaber, and three men named McKellar, Robinson, and Curtis. In 1878 Captain Clancy and a man named

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<sup>12</sup> *Iowa Wool News*, May 25, 1940:4.

<sup>13</sup> Ronstadt, Interview, February 18, 1940. Also letter to author, March 6, 1940. Antonio Aros was born in Riverside, California, in 1850, the son of Esteban Aros, a native of Spain. The father had owned part of the famous Rincon Grant in Riverside County, and had developed large droves of sheep and a herd of closely selected Arabian horses. When the American immigrants brought improved British cattle to California, he started breeding Shorthorns as well. Antonio Aros sold the ranch he took up in Arizona in 1920 to a man named Olney, and he in turn sold it in 1925 to Harold Bell Wright, well known author of historical novels. On Wright's death it was purchased by the Baboquivari Cattle Company (the Ronstadts) and became part of their Santa Margarita property, but it still appears on local maps as the Aros Ranch.

<sup>14</sup> Gordon, "Report on Cattle, Sheep, and Swine," *Tenth United States Census*, III:1035-36 fn. Union Pass in the Blue Ridge Mountains is not far from modern Oatman, the southern part of what Ives called the "Black Mountains," near the Colorado River in the western part of Mohave County. The Blue Ridge Mountains were so designated by Lieutenant Mallory. Union Pass is located by the surveyor as T. 22 N., R. 19 W. Information from Arizona Pioneers Historical Society.

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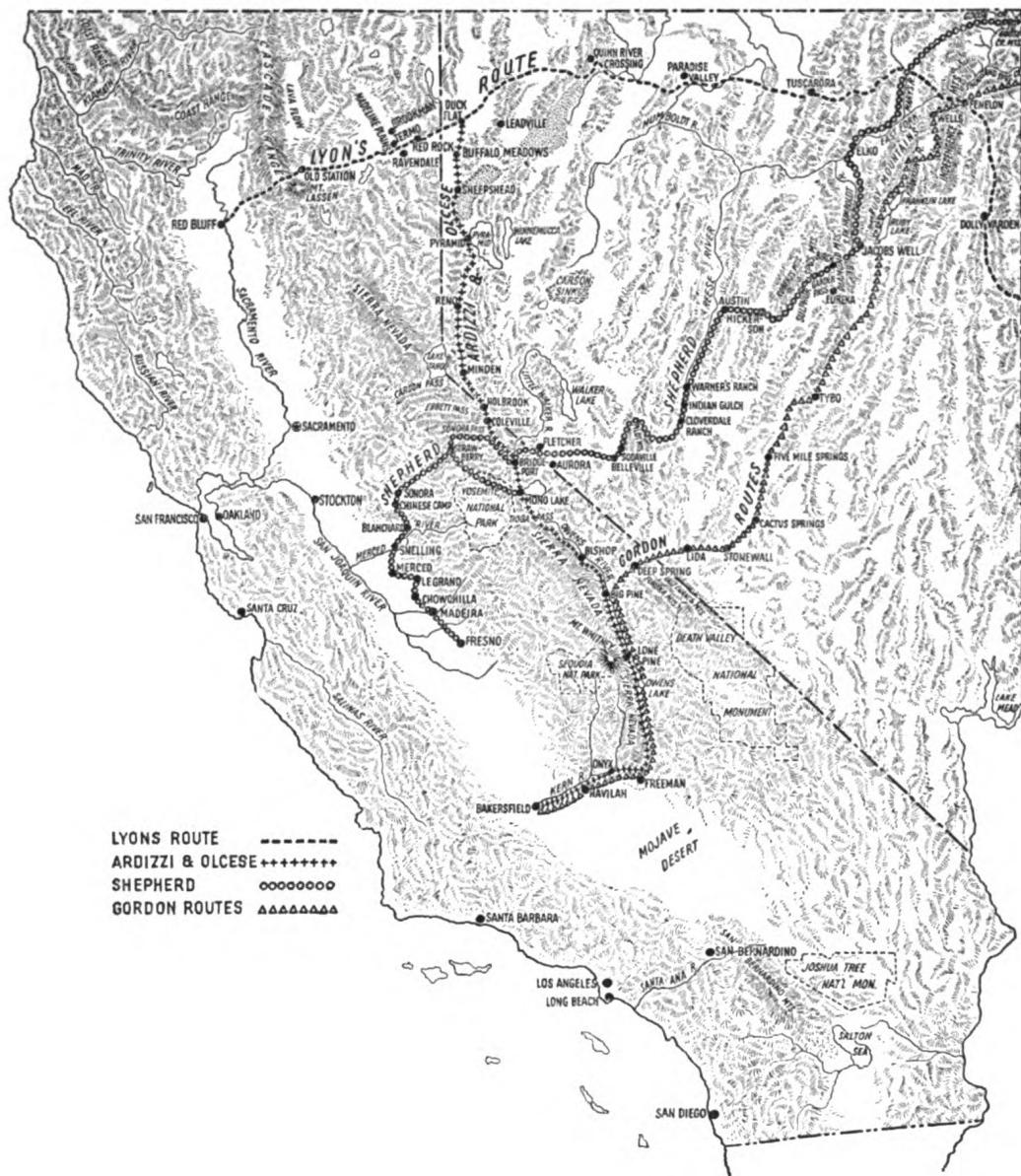


FIG. 64—Eastbound sheep trails across California and Nevada, 1875–1900.

Booth drove four thousand. All of these sheep were grade Merinos that cost \$2 a head in California, and were worth \$3.50 in New Mexico.

The middle route described by Gordon led from Independence in California, north of Owen's Lake on the east flank of the Sierras, down Owen's River and across Nevada via Esmeralda County,

the Ralston Desert, and Humboldt Wells (modern Wells), to Goose Creek or Raft River in Idaho, and thence up the Snake to where one could cross the Continental Divide between Idaho and Montana.<sup>15</sup> The points listed are rather sketchy and will be considered in greater detail in

<sup>15</sup> Gordon, "Report on Cattle, Sheep, and Swine," *Tenth United States Census*, III:1036.

the individual drives of other flock-masters.

Gordon's northern route ran "above Lassen Butte" (Mount Lassen in southeastern Shasta County, California) through southern Oregon to the Snake River.<sup>16</sup> This route, which crossed northwestern Nevada to Quinn River, Ten Mile Creek, and over the divide to Rattlesnake Creek and the Jordan Valley, was used in the sixties and occasionally in the early seventies for flocks going to southwestern Idaho, but was abandoned in the early eighties in favor of the more popular route across northern Nevada.

Total drives out of California for the four-year period 1877-80 were as follows:

1877 .....	50,000 head
1878 .....	50,000 head
1879 .....	100,000 head
1880 .....	nearly 150,000 head <sup>17</sup>

#### EARLY DRIVES FROM OREGON

While the program of sheep improvement in early Oregon was not as consistent as that of California, the stock was better adapted climatically to populating Montana and the northwest than was the California type, and Oregon was nearer geographically. In 1867 the Jesuit fathers trailed three hundred head of Oregon sheep over the Mullan road to St. Peter's Mission, about ten miles west of the modern town of Cascade on the Missouri River below Helena.<sup>18</sup> They were wintered that season at the Mission, and the following spring were taken to the Little Prickly Pear Valley north of that city. Between 1868 and 1870 flocks from Oregon crowded into the Sun River Valley, but they were largely wethers and had no effect on the final settlement of the country.

In 1869, John F. Bishop and Richard Reynolds went out to The Dalles in Oregon to buy horses. Prices were high, so instead they purchased fifteen hundred

sheep at \$2.50 per head from a wool grower named Beasley, who lived about fifteen miles from The Dalles. Hiring a man to drive their sheep, they bought a mule team and wagon and headed back for Montana. The night herding practice they adopted was used by trail-drivers between Illinois and Texas before the Civil War. "We bought several bolts of domestic (unbleached) muslin which we nailed to stakes that we cut in the timber. At night we set this up for a corral. In the morning we rolled it up and carried it in the wagon."<sup>19</sup>

Their route ran from The Dalles up the Columbia River, by Ft. Scott, over the Deschutes River on a toll bridge, across to the John Day River, up it to Canyon City, over the Strawberry Mountains to the North Fork of the Malheur, down the Malheur to the Snake, crosscountry to Boise, around the foot of the mountains to Junction, Idaho (in the vicinity of the Birch Creek Sinks), over Bannock Pass, and down the Medicine Lodge to the Beaverhead.

The trip was difficult and many streams were forded. At some river crossings they were forced to build rafts on which the sheep were transported. When they reached modern Payette, Idaho, the ferryman collected fifty dollars from them to transport their flocks over the Snake River. Where the water courses were narrow enough, though, and timber was available, two logs were felled, dropped over the stream and the sheep were driven across. Sometimes they had to cover the logs with brush and dirt in

<sup>16</sup> Gordon, "Report on Cattle, Sheep, and Swine," *Tenth United States Census*, III:1036.

<sup>17</sup> *Ibid.*

<sup>18</sup> MSS. Montana State Historical Library, Helena, Montana.

<sup>19</sup> Jean Bishop, Dillon, Montana. Statement quoted from her father, John F. Bishop, in MSS. written by her, in possession of the Montana State Historical Library, Helena.

order to get the flock started. After three months of trailing, they reached John Selway's ranch in the Beaverhead Valley on November 17, 1869, and wintered on Birch Creek.

The movement from Oregon was slower in developing volume than that from California. The season during which flocks could move was more restricted, as the grass started growth later in eastern Oregon than in the territory farther south. In spite of this, there were sixty-two thousand sheep driven out of the state in 1880,<sup>20</sup> and much greater numbers were averaged during the decade that followed. Since Oregon was closer to the northern territories than California, the handicap of a later start for the trail bands each spring became less important.

Statistics of the trail bands have always been fragmentary. Although it is known that a large number of sheep were driven out of California and Oregon between 1870 and 1880, the only available statistics are Gordon's. He<sup>21</sup> presents counts to show that in 1880 ewes formed 40 per cent of the sheep in Montana flocks; 47 per cent of those in Wyoming; 40 per cent in Nevada; and 44 per cent in Colorado. No counts were given for Idaho and Utah. It is obvious that normal culling and death rates among breeding ewes could never have permitted such an increase on a reproductive basis alone. Between the ninth and tenth census years, 1870 and 1880, the sheep population of the "territories" increased as follows:

While the incompleteness of the 1870 Census may have overlooked some sheep in the first four territories, due to the light settlement, there is little question but that the ratios of increase are far beyond the reproductive capacity of the original flocks—especially when death rates, marketings, lamb losses, and other hazards are taken into consideration. Just what proportion of the 1880 population can be assumed to have originated from normal range reproduction and what from trailing is difficult to estimate, however. Probably more than half of the breeding ewes were "drive-ins," and the proportion may have been somewhat greater.

#### THE TRANSITION, 1880-85

During the period 1880-85 the composition of the trail flocks gradually changed from bands that were predominantly ewes to bands that were predominantly wethers. Throughout the early eighties important surpluses of irrigated crops were developing in the valleys of the Platte and Arkansas rivers, and especially in the Cache le Poudre Valley of northern Colorado. These districts were too far from the older cattle, hog, and sheep feeding areas of the Cornbelt to make it practicable to ship the feedstuffs east for market. Too, the limited railroad facilities, plus high rates, made their extensive transport a risky

<sup>20</sup> Gordon, "Report on Cattle, Sheep, and Swine," *Tenth United States Census*, III:1087.

<sup>21</sup> *Ibid.*, 1026, 1017, 1069, 1007, respectively.

#### SHEEP POPULATION

Territory	Census 1870	Census 1880	Ratio of Increase
Idaho.....	1,021	27,326	27 to 1
Montana.....	2,024	184,277	91 to 1
Wyoming.....	6,409	140,225	22 to 1
Nevada.....	803	76,524	95 to 1
Utah.....	59,672	233,121	4 to 1
Colorado.....	120,928	746,443	6 to 1

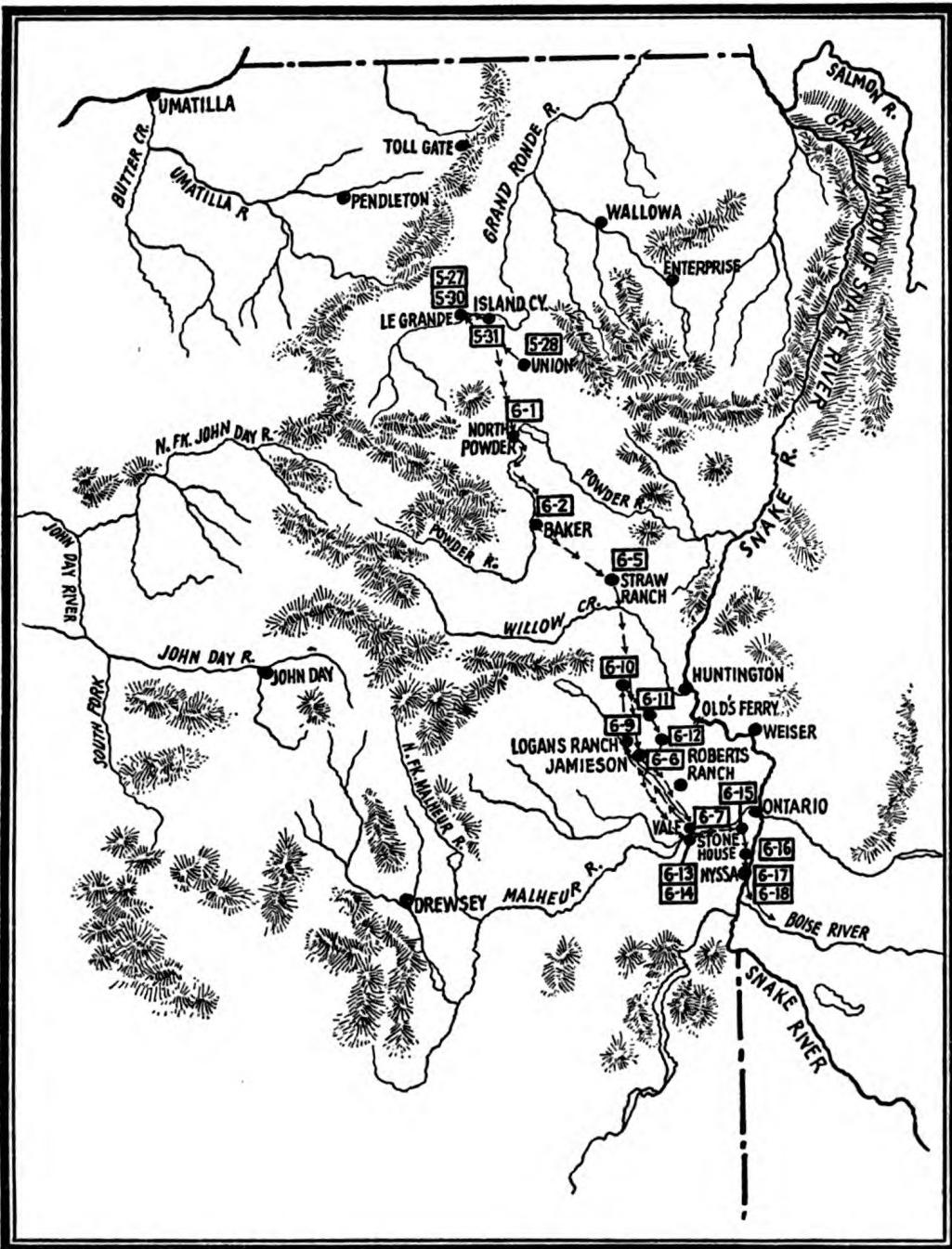


FIG. 65—Trail followed by Evans out of Eastern Oregon (see page 281).

performance from the standpoint of profit.

The natural response was to drive livestock into these irrigated regions, and provide a means of concentrating the feeds into a marketable package. Both sheep and cattle were introduced for the purpose, but a much larger propor-

tion of sheep than cattle was driven there on the hoof. During this five-year period, the yearling and two-year-old ewes were largely replaced by wethers that traveled across the country to fatten in the feed-lots. The Platte River district of mid-eastern Nebraska was the first goal of the wether trailers, followed by the

Cache la Poudre and Arkansas River valleys of Colorado and the North Platte Valley in western Nebraska.

Gordon presents interesting estimates on the trail movements of sheep in the year 1880,<sup>22</sup> that cover all of the important western trails. They total 588,000 sheep, although there may be some duplications. A discrepancy of fifty thousand head exists in the figures on sheep driven into Kansas from Colorado, but even with that error it seems probable that there were more than a half million. The table compiled from

his 1880 census data shows the sheep reported as received by the different territories, together with their sources. Apparently 228,900 head used the trail in whole or in part from New Mexico into Colorado, Kansas, and Nebraska; 147,000 used the trail from the west into Montana; and 126,000 used the trail into or across Wyoming for the East. About 85,000 moved by other trails or by rail.

<sup>22</sup> Gordon, "Report on Cattle, Sheep, and Swine," *Tenth United States Census*, III:954-1101.

#### TRAIL MOVEMENTS, 1880

Source of Bands	Destinations					
	Montana	Wyoming	Colorado	Nebraska	Kansas	Washington
California.....	72,000	30,000	10,000			7,500
Colorado.....		8,000				
Idaho.....	20,000					
Kansas.....				10,000		
Nebraska.....			210*			
Nevada.....	10,000	15,000				
New Mexico.....		22,000	50,000			
Oregon.....	25,000	15,000				11,000
Utah.....	5,000	20,000				
Washington.....	15,000					
Wyoming.....	1,500		210*	20,000		
Rail.....		840	1,000	9,860		
Total.....	148,500	110,840	61,420	79,860	103,900	18,500

Source of Bands	Destinations					
	Nevada	Dakota	California	Idaho	Utah	Arizona
California.....	22,357					
Colorado.....						
Idaho.....						
Kansas.....						
Nebraska.....		7,000				
Nevada.....			362			
New Mexico.....						
Oregon.....	5,000			6,000	1,200	
Utah.....						15,000
Washington.....						
Wyoming.....		8,000				
Rail.....						
Total.....	27,357	15,000	362	6,000	1,200	15,000

\* Colorado received 420 head from Wyoming and Nebraska combined, with no basis for separation provided, so they have been divided arbitrarily in half.

† At another point, page 999 of the Supplement to the 1880 Census, Gordon reports 53,900 head from Colorado sent to Kansas.

During 1880, California prices were about \$1.50 to \$2 per head, and large numbers of eastern buyers, mostly small operators, were hazarding the trip to the Sacramento and San Joaquin valleys. There they could make their purchases in the land of origin rather than run the risk of being unable to buy their requirements at the end of the trail. About two years were utilized in making the trip from California to Wyoming and the wool clip en route usually met the expenses. By 1884 the western counties of Wyoming were chiefly populated by California sheep.

There is little measure of the number of sheep from California that went into Arizona, New Mexico, and Texas in earlier days, but by the first half of the eighties Texas had become the principal southern market for California sheep. Shepherd wrote in 1883:

Texas has lately been a good outlet for some of the surplus stock of California; young sheep have been bought and sent by rail half-way, and afterwards driven into that state. For many years previously large bands have left both the northern and southern parts of California for the newly settled territories of Colorado, Wyoming, and Montana. The numbers run up to hundreds of thousands each year.<sup>22</sup>

This reference to rail-haul part way introduced a new factor that became more and more important as the frontiers from the Missouri River and the plains country moved westward to meet the advance from the Pacific Coast.

#### TRAILS ACROSS NEVADA

To reach the intermountain country, it was necessary to trail across a very dry region in Nevada, Utah, and Idaho. Water was scarce; drives were long, and many dry camps had to be made. No matter what the eastern destination might be, the first problem in trailing from California was to find a route through Nevada. Gradually two trails—northern and southern—were devel-

oped, each with minor variations. Neither of these paths followed the well-known California Overland Trail of the gold rush along the Humboldt.

It is customary to speak of a sheep trail as following a certain route, but the frontage along which a flock grazed was always as wide as the herder could obtain. When several bands were being driven under the same ownership or trail foreman, the front might spread out several miles. Along highways and through farming country it had to be as narrow as the road, sixty to one hundred feet, and occasionally with no feed along it. Sometimes the highways would not be fenced through farming country, and no trail sheep ever existed that would respect imaginary boundaries. Nearly always a band would insist on at least a two hundred yard front.

While sheep-owning farmers were somewhat tolerant of this natural inclination, most homesteaders and crop farmers felt differently. Typically, each of the latter would mount his horse and ride to meet the column of dust that indicated the approach of a band of sheep. Shepherd wrote in 1883:

He is all on the fight; first he wants you to go back, then to go around, and last to manage the herd as you might a battalion of soldiers, and march them past his grazing group in a solid pack, on a narrow strip of road. . . . It would be difficult to take sheep on the drive, close along green crops, without their breaking into them. Here troubles begin with the farmer's opportunity of claiming compensation. As a matter in which he may have to go to law, he must exaggerate the damage. He will always find neighborly friends who will swear to his complaint, and assess the loss arising from a few hundred sheep crossing a corner of his field at the price of a crop from twenty acres of wheat.<sup>23</sup>

The other extreme for frontage occurred in the southeastern Idaho country centering around Soda Springs,

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<sup>22</sup> Major W. Shepherd, *Prairie Experiences in Handling Cattle and Sheep*, 130–31.

<sup>23</sup> *Ibid.*, 153.

where the trail was as much as fifty miles wide. Because of these variations there has been much room for differences of opinion, and even active dispute, as to just where the main sheep trails were located. All descriptions of routes given in this narration attempt to give the general direction or the center of the trail, rather than to list some favorite quirk or detour of a particular driver.

From southern California, the herds would either come down off Walker Pass and work north out of Bishop, along the west flank of the Basin ranges, toward Candelaria, Belleville, and Soda-ville in Nevada; or else they would come via Sonora Pass to the north of Yosemite, and strike eastward through Aurora, Nevada, for the same district. From this point, the route led north-easterly forty miles across the San Antonio Desert to Cloverdale Ranch, and thence past Warner's Ranch, down the Reese River and the western slopes of the Toiyabe Range to Austin.

East of Austin, the bands would cross the mountains into Hickerson, turn slightly northward to skirt the base and eastern walls of the Roberts Range, and cross the Sulphur Springs Mountains through Garden Pass. Then they would swing southeast of the Alkali Desert, to bend north again along the Diamond Range, and reach, via Huntington Creek, the valley of the South Fork of the Humboldt. Down this stream they traveled to Elko and turned up the East Fork of the Humboldt and over to Mary's River to join the trail across the northern part of the state.

Gordon presents two variations of this route in the 1880 Census.<sup>25</sup> A band of ten thousand sheep from Kern County, California, crossed Walker Pass, followed up Owen's River past Mono Lake and White Mountain Peak to pursue the route mentioned across the Ralston Desert to Eureka and thence take a

"direct line to Wells" (along the western slope of the Ruby Mountains). From here it went to the base of the "Goose Creek" Mountains (Nevada-Idaho line) and down Goose Creek to the Snake. The total distance to Helena, Montana, was fifteen hundred miles, five months were required for the trip, the cost per head was 47½ cents, and six hundred head were lost en route. These sheep cost \$1.50 per head in California, and brought \$2.50 to \$3 per head in Montana.

A second band of five thousand sheep from the same county went from Bakersfield via Havilah, Walker Pass, Owen's River, and Big Pine in California across a still more southern route. They passed Alida Springs (modern Lida, Nevada) southeast of Tonopah to Five Mile Spring, Tybo, and along the west flank of the Hot Spring Range to a pass in the mountains about twenty miles south of Eureka, thence northeast over the south end of the Diamond Range, where U. S. Highway 50 now crosses it, and still northeast across the south end of the Ruby Mountains, up the east flank of that range, up Franklin River to the pass, and over it to the east side of the Independence Mountains to Wells.

This route was three hundred miles shorter to Helena and required two weeks less time. The cost was 50 cents per head, due to the smaller size of flock.

The northern branch of the great trail across Nevada really started at Red Bluff in California, though there were numerous little branches that joined with it all along the first hundred miles of the route. Starting on the east bank of the Sacramento, where Lassen Junction is now located, the trail led north and east to Dales. From here it followed the approximate route of the old road

<sup>25</sup> Gordon, "Report on Cattle, Sheep, and Swine," *Tenth United States Census*, III:1027.

to Manton and Viola, and then that of the modern highway, (California 44) past Manzanita Lake to Old Station. The trail drivers knew this last spot as Hell's Half Acre, which was the location of an old military post of the Civil War period, for protection against the northern Indian tribes.

Leaving Hell's Half Acre, the drovers continued through the rough country northeast of Lassen's Volcano, passing south of the Subway Caves, across Gray's Valley, and to the north end of Eagle Lake. All the way the trend of the trail led toward the northeast, striking the Madeline Plains about the center and crossing via Terro to Red Rock. The state line at Nevada was reached about seventy miles south of the Oregon boundary, and the trail continued on to Duck Flat.<sup>26</sup> Directly east lay the Granite Creek Desert with the Black Rock Desert somewhat to the north of it. Hence the trail still led northeasterly, keeping on the west side of the Granite Range and skirting High Rock Lake to lead on to Summit Lake.

From here the trail moved straight east, turning slightly southeast at the south edge of the Pine Forest Range so as to take a short cut over the Black Rock Desert and reach Happy Creek. Beyond the pass in the Jackson Range, it kept above the Alkali Flats to cross both King's River and the Silver State Range for the Santa Rosa Mountains. Here the trail led down the well-known Paradise Hill to Paradise Valley, a favorite recuperating spot for the great trail herds.

Down Paradise Hill, Lyon once had a most unusual experience.<sup>27</sup> For practically five days of very hot weather his band had been without water, and they had been driven three moonlight nights. He was in charge of the first band in the drive, and had had no water himself for twenty-four hours. Both his horse

and his men had quit, but he finally prevailed on one of the latter to go ahead in a final effort to find water. This man took all of the dogs with him, and did not attempt to return before the next morning.

Fortunately, Lyon's own dog, after finding a drink, came back to him in the middle of the night. Heartened by the refreshed dog, and solely because of his assistance, Lyon finally forced the six thousand sheep on to the stream. It was clear and cool in the early morning air, but the sheep were so crazed from thirst that they ran up and down the banks, utterly bewildered, without taking any water. Several times the dog had to turn them back before the notion of drinking entered their befuddled heads, but he persisted in holding them there until they all discovered that they could slake their thirsts.<sup>28</sup>

<sup>26</sup> Details as to the routes across California and northern Nevada were secured by interview and correspondence with D. B. Lyon and Fred Ellenwood of Red Bluff, California, and with R. A. Martin of Harlowton, Montana. The southern route is well described by Major Shepherd, *Prairie Experiences*, 160-252.

<sup>27</sup> D. B. Lyon, Red Bluff, California. Letter to author, November 16, 1939. Lyon was driving the first of three bands of six thousand head each, trailed by the Neponset Land and Livestock Company (Chapman Brothers) from California to their range near Evanston in southwestern Wyoming. The majority of the sheep had been purchased from the Cone Ranch near Red Bluff, and the rest from Ardizzi and Olcese at Bakersfield. The latter had been shipped to Reno and trailed 150 miles due north to join the rest of the flock at Duck Flat. From here the regular trail eastward was followed. The trail boss was William Gooding, a brother of former United States Senator Frank Gooding of Idaho, also former president of the National Wool Growers' Association.

<sup>28</sup> Lyon, Letter, November 16, 1939, reports that this dog was sired by a short-haired, smooth-coated, black and tan sheep dog imported from Scotland by Gov. Leland Stanford. Its prowess so impressed the owners of the sheep (Chapman Brothers of the Neponset Land and Livestock Company, Evanston, Wyoming) that they purchased him at \$150. Lyon afterward regretted the sale as he never found a sheep dog to match him. For many years the progeny of this dog were extremely popular with the sheepmen of southwestern Wyoming where the Neponset Company grazed its flocks.

In Paradise Valley the trail struck the Little Humboldt River and continued beside Milligan Creek to cross over the mountains to Tuscarora and the upper waters of the Owyhee. Thence it led east across the Independence Mountains and the North Fork of the Humboldt, south of Mason Peak and into the valley of Mary's River. Here the southern route joined and the fork for Idaho or for Utah and southwestern Wyoming was encountered. Three branches led into Idaho via Goose Creek, Raft River, or the Little Malad. This last branch was the principal one followed, but involved a seventy-five mile drive across the extreme northwest corner of Utah.

While the route across Nevada—by the Humboldt River, the Carson Sinks, and the Carson River up over the Sierras—had been used by westbound flock drivers in the fifties when en route to the gold fields, the country had been fenced too much to permit easy driving of sheep the latter quarter of the last century. By the mid-nineties many of the last watering places on both of these routes had been fenced and the remainder were often so closely guarded as to be unavailable.

The northern route lasted a year or two longer than the southern, not because it was less closely fenced—as a matter of fact it was more so—but because it was the only route along which wagons could be used. It left the worst desert country to the south, yet was not so far up in the mountains as to require many crossings of canyons and deep ravines. In 1880 Gordon referred to Nevada flocks<sup>29</sup> as nomadic and when the last drive crossed in 1896 there were few permanent flocks in that part of the state. Lyon<sup>30</sup> struck only one band of seven to eight hundred head that seemed really to be established, although Healy and Patterson were running between

thirty and forty thousand head near Mountain City, north of the trail.<sup>31</sup>

#### ROUTINE OF THE DRIVES

The detailed duties in getting ready for the long drive were numerous. Trailing was not the simple task of getting the sheep from one location to another. It also involved care that preserved the health and condition of the breeding animals, and increased the weight of the wethers. A drover corresponded not only to the train crew of the railroad, but to the parents who maintained an ever watchful interest over the family. Trail bands consisted of three to six thousand head and often an owner had enough bands en route to total twenty to twenty-five thousand head. Such numbers were beyond the ability of any single untrained man to protect, and crews of really experienced trail herders were required.

It was not always easy to get desirable men. Major Shepherd<sup>32</sup> tackled the job in 1883, though a mere tourist in the country, and recorded numerous discouraging as well as humorous experiences. He decided that he needed six men and a cook for the two bands that he assembled for the trail. Despite all efforts at selection, he finally had to take such men as he could get, "rather a scratch lot." Yet he commented interestingly on the different nationalities working as herders.

Basque, French, and Portuguese shepherds were utterly impossible to obtain, as they preferred to work with flockmasters of their own races. The Mexicans were extremely anxious to enter his service, but would not join a

<sup>29</sup> Gordon, "Report on Cattle, Sheep, and Swine," *Tenth United States Census*, III:1060.

<sup>30</sup> Lyon, Letter, November 16, 1939.

<sup>31</sup> Alex Healy, Worland, Wyoming. Letter to author, June 11, 1940.

<sup>32</sup> Shepherd, *Prairie Experiences*, 139-256.

drive that took them from the temperate parts of California. Chinese would work hard, but "their work had to be more watched. They have no great invention, their labor is mechanical and routine, and emergency finds them unprepared. They will also be careless and dirty, and even sometimes maltreat the stock. The balance of good and evil is, however, in their favor."<sup>33</sup> The Americans "talked too big." They all felt they could "fill the bill" as foreman, but those he interviewed had neither previous experience nor knowledge of the trail. Furthermore, each American felt that he could "boss the job" better than his fellow, and disputes were time-consuming.

A second problem was that of shearing. Many of his purchases were from small owners, some of whom had sheared that spring and some had not. Shepherd found that twelve to thirteen hundred head in his two bands were still carrying their fleeces, so hired a set of run-down shearing sheds near Fresno. It proved necessary to rearrange the fences, board up the holes, and make other arrangements to keep the sheep in the pens. "A mixed band of Mexicans and Chinese did the shearing, each man careful not to catch any sheep which on account of size or wool was likely to prove slightly more troublesome."<sup>34</sup>

A third problem in moving trail herds out of California was dipping. Up to the mid-eighties the great majority of the wool growers of that state tolerated some disease rather than to eradicate it, and most flocks showed signs of scab even though the owners dipped annually.<sup>35</sup> The territories across which the sheep were driven passed laws for the control of scab and ticks, and appointed veterinarians—or at least practical men to inspect the flocks. Therefore, most trail bands had to be dipped before leaving California,

especially those originating in the San Joaquin Valley and farther south. Early dipping stations (1883) were rather primitive but they sufficed.<sup>36</sup> However, there were occasional abuses of authority along the trail at the inspection points.<sup>37</sup>

The breeding sheep from California were driven in bands averaging about twenty-five hundred to five thousand head, while the Oregon wethers usually numbered five to seven thousand per band. Although many single bands were trailed across, it was less expensive per head if two or more bands were handled under one direction, but separated when driving by a half mile to a day's drive. This made it possible for a single cook to feed the herders with two or three bands. It also lessened the cost per sheep of the trail foreman who located the trail, found water and bed grounds, and hunted the necessary supplies. The cook could drive the supply wagon for two bands as easily as for one. Each band required three men to handle it—"one at the point or lead, one at the swing or about the center, and the other bringing up the trail."<sup>38</sup>

Sheep usually liked to leave the bed ground early—partly because their appetites or thirsts were keen at that hour, and partly because drivers preferred dry camps at night where the sheep would rest quietly (undisturbed by the knowledge of nearby water and the temptation to follow every sheep that started for a drink). Sheep seem fondest of feeding in the early morning and late in the evening, and will rush out wildly in

<sup>33</sup> Shepherd, *Prairie Experiences*, 145.

<sup>34</sup> *Ibid.*, 151.

<sup>35</sup> *Ibid.*, 154.

<sup>36</sup> *Ibid.*, 155–60.

<sup>37</sup> *Ibid.*, 154.

<sup>38</sup> Thomas Cooper, Casper, Wyoming. Letter to author, September 30, 1938.

search of feed as though they had eaten nothing previously. If they started off in the right direction the herders could eat their breakfasts and follow on. If they headed wrongly and were stubborn about it, the herders might get no breakfast until the flock was ready for "nooning," the morning's rest.

Under the usual routine of the trail the cook would waken before the sheep would begin to stir, and have breakfast ready by the time the flock would move out. The cook or the trail boss would waken the herders, who would tumble out, do such dressing as was required, roll up their beds, carry them to the wagon, gulp their breakfasts, and start out after the sheep. The cook would then clean up the dishes, repack his supplies and the bedrolls, catch up and harness the horses, and move out for the next camp. En route he watered his horses and replenished the camp water supply. Sometimes he could arrive in time for a short nap; sometimes in barren country where the sheep traveled extra distances he would reach the bed ground about the same time as the sheep.

Frequently the sheep would feed past the spot selected for camp by the cook, and the herders would have to take turns coming back for "grub." Then the herders' beds had to be loaded on a horse for transport to the sheep, and the last herder to eat would lead or ride the horse back to the wagon. The next morning the wagon would start when the sheep had been on the move for an hour. Breakfast would be eaten when the sheep had made a few miles so that they were feeding along steadily in the proper direction,<sup>39</sup> or when they stopped for rest. The herders would leave their beds along the trail, where the sheep had bedded down, and the cook would load them on the wagon when he reached them.

Ideally a band of sheep would move

about as follows, starting very early in the morning so as to graze while it was still cool. The average drive would be eight to ten miles a day, not only to preserve the flesh on the animals but to avoid overtaxing them in any way. If possible the flock would fill with grass and reach the banks of a stream before the sun grew hot. There they could drink and lie in the shade, with their heads under the shadow of each other's bodies if there was not sufficient brush or tree growth to shelter them.

Sheep that have grazed sufficiently will remain until the sun is at least half way down the heavens—then they will begin to scatter out and feed. When the whole flock is on its feet, the animals are turned out in the right direction and travel slowly until nightfall. They are then rounded up in a bunch on what appears to be a good bed-ground and allowed to drop off to sleep. In general the old-time driver would let the sheep start out or rest as they wished, making certain that they were always headed in a direction that would assure plenty of grass and water and an early end to the trail. The night stop was known as "bedding down" and the day stop as "nooning."

This description of an ideal day is desirable principally because it practically never occurred. Perhaps the feed would be so scarce or the watering spots so separated that fifteen or more miles had to be covered. Perhaps there would be no water where the sheep wanted to "noon" and it would be necessary to force them on a few miles farther. Sometimes to cross the hot waterless deserts it was necessary to make dry drives, when the distance might require covering as much as twenty miles and the driving had to be accomplished at night. Such drives might have to be made on two

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<sup>39</sup> George E. Smith, Letter, November 4, 1938.

or three nights in succession, but more than two nights would normally prove dangerous.

Perhaps the most annoying thing on the drive was to have the sheep uneasy at night, with the consequent necessity of the herders and dogs having to turn them back to the bed-ground. Sometimes hunger would be the initiating cause—sometimes thirst. Occasionally the yap-ping of coyotes throughout the night would make some of the sheep mill into others lying down. Sleeping hours were always short enough anyhow, and being disturbed many times during the night constituted a severe strain on herders and dogs alike.

With the larger bands, the herders were often arranged as sentries, each to take his turn for two hours in circling the flock and seeing that they remained quiet. This was especially important when both water and feed had been scarce and speed had to be made toward the destination. But even this precaution was often considered an imposition by the tired trail drivers, and they would chance a night of frequent interruptions in preference to the turns at "night watch" that were routine to the cowboy.

#### THE TRAIL FROM NEW MEXICO

Trailing north or northeast out of New Mexico was not a new experience when the big sheep drives began. Numbers of New Mexico sheep had been driven into Kansas, Nebraska, and Missouri for stocking purposes previous to the Civil War, and the route from Las Vegas or Taos to Fort Laramie in Wyoming was well known. The first deviation from this trail across Colorado occurred in the late sixties when New Mexican sheep were driven to the upper Arkansas Valley through the Rio Grande and San Luis Valleys, or via Raton Pass to the vicinity of Pueblo and northward along the foothills flanking the great

mass of the Rockies. A few of these bands stopped beyond Denver in the South Platte and Cache la Poudre valleys, and a larger number continued to the vicinity of Cheyenne and Laramie in Wyoming.

In the mid-seventies, occasional droves were moving down from Raton via the Purgatoire and Arkansas valleys to be fattened in the vicinity of Wichita and Hutchinson. By that date, the great drives of Texas cattle were no longer traversing mid-Kansas, but were crossing the state through Dodge City or even farther west. The Census for 1880<sup>40</sup> reports that 195,200 stock sheep and 28,700 feeding sheep were driven into Kansas—198,700 arriving at Dodge City and 25,200 reaching Caldwell, south of Wichita. Between seventy and eighty thousand of the stock sheep finally remained in the unorganized counties.

The trail within Kansas closed in the mid-eighties, but on the basis of these figures around a million and a half sheep must have traveled it during the twelve years the business operated. The source and prices of the sheep going to Kansas in 1880 were as follows:

Source	Number	PRICE PER HEAD	
		Stock	Sheep
Colorado .....	53,900	\$2.37½	\$2.12½
New Mexico .....	80,300	2.00	1.75
Texas Panhandle.	89,700	2.37	2.12½

Unquestionably many of the sheep from the Panhandle were of New Mexican origin, wintered out on the plains after the custom of certain New Mexico flock-masters during the half-century or more preceding.

In 1880 a few bands of sheep were following down the South Platte in Colorado, destined for the Nebraska feedlots. Soon they were in trouble with the cattlemen, especially the crews of cowboys working for John W. Iliff, whose

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<sup>40</sup> Gordon, "Report on Cattle, Sheep, and Swine," *Tenth United States Census*, III:999.

principal operations were based on the South Platte River. This necessitated a swing to the east, and a few drives were made between 1881 and 1885 across the high plains, using in part the route pioneered by Kit Carson in 1853<sup>41</sup>—from Raton Pass down the Purgatoire to the vicinity of Bent's Fort, up Adobe Creek, across the headwaters of the various branches of Rush Creek to the north, along Big Sandy Creek, across to Deer Trail Creek, and along Bijou Creek to the South Platte. By 1885 so many settlers had taken up claims along the water that the movement became confined to the rails.

#### THE TRAILS AFTER 1885

The breaking of the Sioux power in 1876–77, following the Custer debacle on the Little Bighorn and the defeat of Chief Joseph and his Nez Perces in the latter year, made it possible to move livestock across Montana and Wyoming. The depression in wool prices of the mid-seventies forced the accumulation of wethers in northern California, Oregon, and southern Washington. Prices there averaged only half of what they were in eastern Wyoming, Nebraska, and Kansas, and many sheep growers in the two former states began hazarding the long overland trip.

Most of them were men unaccustomed to trading, but thoroughly cognizant of all matters pertaining to the care and handling of flocks. The spread between the price levels of the two regions made it possible for many drovers to reap a profit. As the competition increased and the spread narrowed, however, only the more experienced and efficient were able to continue. As far as numbers of flocks and different operators were concerned, the peak of the Oregon drives for all classes of livestock was probably reached in 1882,<sup>42</sup> but the greatest annual total number of sheep may not have been

reached until 1897–98,<sup>43</sup> following the abandonment of "free wool."

Out of northern California the route from Red Bluff, via northern Nevada, northwestern Utah, southeastern Idaho, and central Wyoming was most used, with an occasional variant south of the Great Salt Lake into the southwestern corner of Wyoming and the Red Desert.<sup>44</sup> From Oregon the trail came from Umatilla County<sup>45</sup> over the Blue Mountains to the vicinity of the modern city of Union, where it turned south into the headwaters of Powder River, following it down to Baker. At various points beyond Baker it crossed over to the south side of Burnt River, which it paralleled down to the Snake, entering Idaho at Olds Ferry, ten miles west of Weiser. Thereafter it crossed the Payette and

<sup>41</sup> Sabin, *Kit Carson Days*, Vol. 2:633–35.

<sup>42</sup> Hartman K. Evans, New York, N. Y. Letter to Robert H. Burns, University of Wyoming, Laramie, April 12, 1934. "The year I came over the trail, 1882, there was an immense amount of stock of all kinds on the trail—cattle, horses, and sheep. I think this was probably the biggest stock driving year of any, but of this I am not sure. At any rate, stock driving was conducted on such a large scale that prices of all stock in Oregon—cattle, horses, and sheep—began to go up, and the differential between the Oregon prices and the Wyoming prices declined, so that my impression is that the amount of stock on the trail from that time on began to decline. . . . At any rate, I know that, although we did well on our sheep drive, we never attempted another, and my recollection is that it was on account of the failing differential."

<sup>43</sup> Ormsby, Interview, May 29, 1940.

<sup>44</sup> The Neponset Company's sheep in 1896 used this route. They left the northern Nevada trail at Mary's River and crossed over to the East Fork of the Humboldt through Fenelon. Passing Cobre and Oasis they followed the west flank of the Toad Range south to Dolly Varden where they wintered. Here the last of the California drivers "froze out" and they were replaced with men from Utah. The following spring they worked south along Nelson Creek to the vicinity of Goshute, and thence east past Warm Springs over the Antelope Range, past Lookout Springs down the Antelope Valley, to Round Valley Creek, Deep Creek Valley, south of Salt Lake Desert into Dugway Valley, Riverbed, Heber, Park City, north of the Oklahoma Divide, and down Morse Creek to Evanston.

<sup>45</sup> Gordon, "Report on Cattle, Sheep, and Swine," *Tenth United States Census*, III:1086.

Boise rivers and carried up Indian and Ten Mile creeks to the Little Camas and Big Camas prairies, past Fairfield, the Wood Rivers, Bellevue,<sup>46</sup> the Lost River Sinks, and Mud Lake, to cross the Snake at Eagle Rock (modern Idaho Falls), and thence to Soda Springs, the Bear River, and the Oregon Trail in Wyoming.

When California sheep went to Montana they usually crossed northern Nevada and northwestern Utah, struck north to the Little Malad, Oneida (modern Arimo), the Port Neuf, the Snake to Eagle Rock, and thence up the west bank of the Snake to Market Lake (modern Roberta), up the old trail leading to the Montana gold mines to Ray's Lake and Camas Creek, up it to the Camas Meadows (some forty miles), westward along the Divide to Spencer or old Beaver (two miles north), and over Monida Pass, across Horse Prairie to Dillon, Virginia City, the Gallatin Valley, Bozeman Hill, and the Yellowstone.

As a matter of fact, there were three crossings over the Continental Divide between Idaho and Montana—via old Fort Harkness on Monida Pass, the Medicine Lodge Pass, or up Birch Creek and over the Divide to Fort Lemhi and Bannock Pass.<sup>47</sup> Fort Harkness was a station on the old stage route between Helena, Butte, Virginia City, and Salt Lake City, and provided a freighter's camp ground with a good supply of hay when oxen and horses were hauling the heavy wagons to the gold mines. The fort was abandoned in 1879 with the completion of the narrow gauge railroad,<sup>48</sup> and the old hayfields made attractive grazing for the sheep.

The Medicine Lodge Pass was farther west, rougher, and more roundabout, but it had the advantage of less travel and less competition for grass. It was often used by southbound freighters who

trailed back to Salt Lake or Corinne empty, but was less used by stock drivers. It was still farther to go up Birch Creek, over to the Lemhi River, Fort Lemhi, and over Bannock Pass. Hence only occasional herds attempted it.

Drivers left Idaho for Wyoming by two routes, either Bear River or across the mountains farther north and down through Star Valley.<sup>49</sup> Thence they would follow the Oregon Trail eastward. Just above the juncture of Smith's Fork with Bear River, north of modern Cokeville, many of them turned east to cross the hills to Ham's Fork, and went down the Fontenelle to Green River, passing through it via the old ford about five miles east of Emigrant Springs and thence to the Big Sandy. As the Green River Valley attracted settlers, many of the herds were sent across the Lander cutoff.

Flocks coming down Star Valley would turn left toward the mountains about six or seven miles south of Smoot, Wyoming, go up to the Divide and down Big Piney Creek. Others used the descent along La Barge Creek. They crossed Green River about three miles north of the modern village of Big Piney, and kept nearly due east until they reached

<sup>46</sup> East of Bellevue the trail varied. Early in the spring it led from Bellevue nearly to Picabo, on the side of the foothills above Carey and then along them to Martin and Arco. Later in the season the flocks crossed the mountains from Bellevue to Muldoon, going into Fish Creek and following a road out of Fish Creek that went into Antelope and nearly to Martin, thence on to Arco. The road from Fish Creek was good for wagons but bad for sheep. "They used to ask us if there was any other way they could go with sheep. There was, but we never told them as we did not want them eating out our feed." Letter to author from James Laidlaw, Muldoon, Idaho, September 20, 1941.

<sup>47</sup> Elvin W. Henninger, Dubois, Idaho. Letter to author, July 23, 1940.

<sup>48</sup> See Biographical Appendix, R. A. Martin.

<sup>49</sup> See Biographical Appendix, Charles Coyle.

the Big Sandy. Thereafter they crossed the Little Sandy, somewhat to the southeast, and going over the Continental Divide followed the headwaters of the West Fork of the Sweetwater, of Willow Creek, and of many other small streams that drained into the Sweetwater. Here they again joined the Oregon Trail.

The Green River crossing was often vexatious. Frank Abbott of Worland, Wyoming, accompanied a trail herd of cattle from Oregon the summer of 1882 and wrote the Wyoming Stock Growers' Association the following description of sheep balking at Green River:

Just before we reached Green River a horseman came riding fast and asked the boss if someone could bring the saddle horses ahead and drive them through a band of sheep that had balked and would not cross the river. They had held them on the gravel beach for forty-eight hours trying to starve them across but they would not take to the water at all. About this time our mess wagon arrived. Big Ed drove about half way across and stopped to let his horses drink. When he started again we put the saddle bunch in, and the sheep followed right along, and in a few minutes the whole band had crossed. . . . They were the same men we had helped across a small stream in the mountains of eastern Oregon. . . . The sheep were balked at a . . . stream not over thirty feet wide and six inches deep. They had caught some of the ewes and tied them to the willows across the creek. They would get two or three hundred across and then they would all run back. Sheep are the dumbest of all animals—sometimes!

Bands destined for Nebraska usually continued along the Sweetwater and North Platte into Nebraska. But those heading for Colorado and Kansas broke away from the Sweetwater about fifteen miles due west of its juncture with the North Platte, and cut across country toward the latter river. Much of this land is at present under water, submerged by the Pathfinder Dam, but it was still possible in the nineties to cross over to a small creek flowing into the North Platte from the east near the mouth of the Sweetwater, go up it seven or eight miles, cross over to the North Fork of Sage Creek, and enter Shirley Basin.

Over the crest, the flocks followed Muddy Creek a short distance, crossed the upper tributaries of the Little Medicine Bow River, Sheep Creek, Boone Creek, and finally headed up Rock Creek (now called Rock River). From here they had a short drive to the Laramie River, which they crossed, and followed it or its tributaries to the Colorado line. There they would continue south into Colorado, striking Trail Creek, the Cache la Poudre, the South Platte, and thence up Bijou Creek to Deer Trail and Las Animas on the Arkansas River.

A few flocks went east from Laramie to the low summit of the range, until they struck the sources of Crow Creek. This they followed to the South Platte, or else crossed over south of Cheyenne to Lone Tree Creek and went down it to the South Platte. They would follow the latter to the mouth of Box Elder Creek and go up it until they could conveniently cross the upper reaches of Kiowa, Bijou, or Deer Trail creeks, which they would follow to the Divide. Here they would strike some one of the branches of Horse Creek and go down it to the Arkansas.

#### PERSONALITIES

The California drives to the East were at their peak throughout the early eighties.<sup>50</sup> Many thousands of sheep crossed Nevada both by the northern and southern routes. At first most of the trailing was done by Californians like Major Kimball, who drove east to find a market, or men like Henry and Jacob Sieben of Montana, who were obtaining breeding flocks to establish on their ranges. Gradually the business concentrated in the hands of highly skilled drovers and dealers—and firms like Cone and Kimball, Cone and Ward,

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<sup>50</sup> Lyon. Interview with author, February 25, 1940.

J. M. and T. N. ("Jim and Newt") Howell,<sup>51</sup> Healy and Patterson,<sup>52</sup> Lee and Blewett,<sup>53</sup> Haley and Saunders, Lang and Ryan, and others, carried on until the trails were closed.

The transition from breeding flocks to wether bands was pretty well completed by 1885, but the hard winter of 1886-87 stimulated the trailing of breeding sheep during the following two summers, in order to occupy the ranges abandoned by cattle operators that went "broke." Thereafter the inclusion of ewes with wethers was more by accident than intention. Many local traders did a fair business buying and cutting them out of the trail bands. Brackenbury<sup>54</sup> relates an incident of this sort in 1888 when he and a friend sorted 650 yearling ewes out of 15,000 wethers being trailed past Rock River by Hershey and Boettcher. Of course some few ewe bands continued to be driven from Oregon until the trails closed, but there was always a good business in sorting yearling or older ewes out of wether bands.

One of the last to make a practice of bringing ewe bands all the way from Oregon was Dr. J. M. Wilson<sup>55</sup> of McKinley, Wyoming, long-time president of the Wyoming Wool Growers' Association. He began driving about 1893, operating as a herd owner from the start, and his last trip was in 1902. He usually handled bands of six thousand yearling ewes each and in his peak year of 1898 he drove six bands at once. The ewes were assembled at Heppner, Oregon, and trailed down the regular route to cross the Snake at Olds Ferry and into Weiser, Idaho. Through Boise, the Camas Prairies, Lost River Sinks, Eagle Rock, Willow Creek, Bear River, La Barge Creek, and along the Sweetwater he followed the regular trail. Near the mouth of the Sweetwater he headed for the North Platte and through Shirley Basin, crossing the Laramie Mountains

to reach his own range on the slopes of Laramie Peak. In 1899 and 1900 he shipped from Weiser to Montpelier, and the last two years of his driving he shipped from Weiser to Medicine Bow and Rock River, respectively.

Just who trailed the first bands of wethers out of Oregon does not seem to be recorded. Martin<sup>56</sup> drove a mixed band of twenty-two hundred California ewes, rams, and wethers from Red Bluff to the Lake Basin in Montana in 1882. Homer, Sargent, and Evans<sup>57</sup> purchased twenty-three thousand head of wethers from the vicinity of Pendleton, Oregon, and trailed them to Laramie, Wyoming. The travel extended from May 27 to September 29, 1882, and the total loss was just over eight hundred sheep.<sup>58</sup> These sheep cost \$1.50 per head in Oregon, and ten thousand of them had been contracted for delivery at Laramie at \$3 per head.<sup>59</sup> With the exception of twenty-five hundred shipped to Mexico, Missouri, for corn fattening, the remainder were kept on the Wyoming ranch for wool production.<sup>60</sup> In the same year Homer and Sargent were credited with bringing twenty-four thousand head from California, but the reporter probably was confused with the Oregon flock.<sup>61</sup>

<sup>51</sup> See Biographical Appendix, James Milton Howell and Thomas Newton Howell.

<sup>52</sup> See Biographical Appendix, Patrick Healy.

<sup>53</sup> Lee and Blewett were originally railroad contractors, but became the largest early firm to operate from the east in California, Oregon, and Washington. Their eastern headquarters were in Fremont, Nebraska, where they both fed and traded in trail sheep. They are estimated to have handled over a half million sheep between 1871 and 1887.

<sup>54</sup> Brackenbury, Letter, March 19, 1941.

<sup>55</sup> J. B. Wilson, McKinley, Wyoming. Letter to author, September 16, 1938.

<sup>56</sup> R. A. Martin, Harlowton, Montana. Interview with author, January 18, 1939.

<sup>57</sup> Hartman K. Evans, "Sheep Trailing From Oregon to Wyoming," *Mississippi Historical Review*, Vol. 28, No. 4 (March, 1942): 581-92.

<sup>58</sup> Evans, Letter to Burns, April 9, 1934.

<sup>59</sup> Evans, Letter to Burns, April 12, 1934.

<sup>60</sup> Evans, Letter to Burns, April 9, 1934.

<sup>61</sup> *Carbon County Journal*, Carbon, Wyoming, May 6, 1882.

Yet trailing was obviously not a new business in 1882, and Evans was inclined to look on that year as the climax for stock driving from Oregon.<sup>62</sup> Certainly this would indicate that the business had been going on for some time and was well established. Other great drives were taking place in 1882. On July 15 the *Cheyenne Leader* reported the arrival at Green River of the first installment of a flock of forty thousand sheep from California. By August, between forty and forty-five thousand were known to be en route into the Wyoming sheep country, between Eagle Rock in Idaho and Green River.<sup>63</sup> The next day the *Laramie Boomerang* told of the approach of four thousand head belonging to E. W. Ormsby. On August 20, the same paper mentioned a hundred thousand head on the Sweetwater, of which more than ten thousand were Oregon stock. Francis E. Warren of Cheyenne purchased the Arthur flock of thirty-five hundred head in that section. On September 13, the *Boomerang* stated that Patsy Healy had reached Laramie with a flock of eleven thousand.

Probably the best advertised flock of the year was introduced by John and Thomas Keogh, who started after thirty thousand Merino ewes in California early in the spring.<sup>64</sup> These crossed northern Nevada, and then came east over the Oregon Trail. By July 25 they were still twenty-five days short of Wells, Nevada, and the date of expected arrival already had been postponed from September to October. Up to that date the losses had been very light, only 225 head.

On August 29, the *Cheyenne Leader* stated that the Keoghs would soon be well into Wyoming Territory, and on September 6 the Keoghs were reported offering for sale twenty-five thousand first class French and Spanish Merino ewes. By September 10 records of sales began to

be published and by September 16 the *Carbon County Journal* stated that the Keoghs were near Rawlins. On October 18, the *Leader* reported that all of the flock was sold, the last four thousand head going to a Mr. Bristol for his range on Little Bear Creek.

Despite the numbers handled, the year 1882 was not considered a very profitable year for sheep trailing. Feed was scarce on the route from California, wool prices were low, and the California growers had held for stiff prices in the winter and early spring.

By 1883, the custom of fattening Oregon trail wethers had been well established in the Cache le Poudre Valley in Colorado. L. Ogilvy<sup>65</sup> finished out a band that year for a local banker of Lucerne, Colorado, who had been forced to take them over from a customer unable to carry on financially. That the practice of feeding Oregon wethers was well known in Colorado at the time is indicated by the sentence, "These wethers were usually started from Oregon in March or April, and were gradually trailed across the country, moving an average of eight to ten miles a day."<sup>66</sup>

During the period that the trailing from Oregon continued, one saw the gradual evolution of the business from adventurous flockmasters, trying to establish themselves in Colorado, Wyoming, or Montana, to trading operators who drove sheep into the feeding districts as a specialized business, in perfect parallel to the changes on the California trail.

Of these traders, it is difficult to name the pioneer. Lee and Blewett of

<sup>62</sup> Evans, Letter to Burns, April 12, 1934.

<sup>63</sup> *Daily Leader*, Cheyenne, Wyoming, August 8, 1882.

<sup>64</sup> *Ibid.*, May 12 and 18, 1882.

<sup>65</sup> L. Ogilvy, Denver, Colorado. Letter to author, May 12, 1938.

<sup>66</sup> *Ibid.*

Fremont, Nebraska, began trailing sheep eastward in 1871, going first to California and then to Oregon. In 1883, L. L. Ormsby,<sup>67</sup> then of Central City, Nebraska, took over the trail jobs his father had been handling for several years. Also Frank Hershey<sup>68</sup> of Gibbon, Nebraska, trailed small flocks on his own account. Somewhat later he was joined by E. Boettcher, another Pennsylvania-born trader from the Chicago Stockyards, and they formed one of the largest and most prominent firms of operators on the trail.

By the mid-eighties, Reynolds Brothers of Fremont, Nebraska, were transacting a big business under the direct management of "Cash" Reynolds, and Healy and Patterson of Ogden were doing an excellent trade, both in breeding sheep and wethers. The latter firm always sold wethers but kept the ewes to stock the various ranges where it operated.<sup>69</sup> Two big operators on trail who came from Oregon were Joe Cunha of Echo and John Kilkenny of Heppner. During the last half of the nineties Gibson and Guthrie of Clarks, Nebraska, were big operators, too.

In 1888, J. B. Long of Great Falls, Montana, began trailing via the northern route from Oregon, Washington, and Idaho into Montana, a practice which he kept up until 1910. Throughout this period he sheared annually about 160,000 head. His custom was to trail the sheep across Montana, and then ship them to feedlots in North Dakota, Minnesota, Wisconsin, and northern Illinois.<sup>70</sup> As a boy in the late seventies or early eighties he and a schoolmate had trailed from Oregon to Beatrice, Nebraska, but he decided this was too slow, kept his money tied up too long, and subjected him to too many market hazards. Long did much of his trading from a railway caboose, buying and selling all along the route.

Other big operators across Montana during the period included A. M. Cree of Forsyth, Joseph Simms of Lavina, L. D. Burtt of White Sulphur Springs, the Rae Brothers of Livingston, John T. Murphy of Helena, and Bert Shorey of Lake Basin. The Turner Brothers of Fremont, Nebraska, were big traders in Idaho, as were J. D. Wood of May, and Joe Rogers of the Big Lost River Valley. R. P. Frazier did a lot of trailing out of the Owyhee country and Thomas Austin operated into Soda Springs. William Horne of Boise and Charles and Ed Beck in the Mayfield-Mountain Home section also were big operators locally.

Trailing became a conventional art. As early as February in some years the drovers would start picking up sheep in the Walla Walla, Pendleton, Heppner, John Day, and Prineville country in Oregon, and begin moving them east. As they struck western Idaho they made additional purchases in the Weiser, Payette, Boise, and Owyhee valleys, and if necessary enlarged their bands with sheep from the Bruneau and Wood River countries. Then supplemental numbers were drawn from the Lost River and Pahsimeroi valleys, the upper Snake, and finally from the Soda Springs country. It was between Blackfoot and Soda Springs that Utah purchases were added to the flocks, and in the Lost River-Idaho Falls stretch that the Montana components came on. If the bands were still incomplete, Wyoming sheep from the Cokeville country could be drawn on.

The earlier bands transported the necessary provisions with pack animals,

<sup>67</sup> See Biographical Appendix, L. L. Ormsby.

<sup>68</sup> See Biographical Appendix, Franklin Hershey.

<sup>69</sup> Healy, Letter, June 11, 1940.

<sup>70</sup> Roy F. Clary, Great Falls, Montana. Interview with author at Montana Wool Growers' Association Convention, Billings, January 18, 1939.

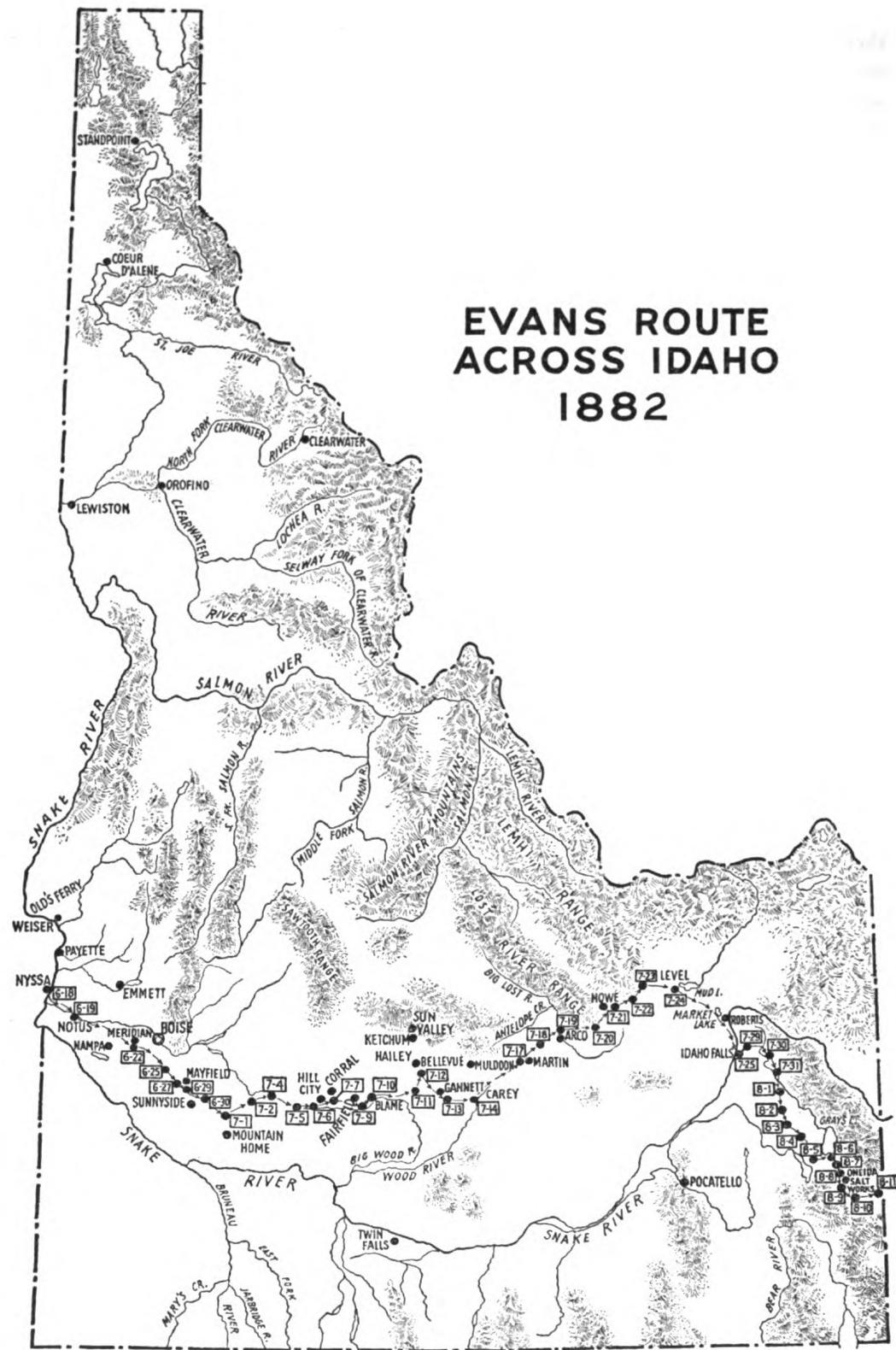


FIG. 66—Idaho trail followed by Evans and majority of trail drives originating in Oregon.

the later ones by wagon. When the flock went into or over the mountains, the wagons usually had to go around to rendezvous at an agreed spot down the trail.

The great buyer of trail flocks throughout the nineties was A. J. Knollin.<sup>71</sup> "He made the best market the West ever had."<sup>72</sup> He would make purchases at any point along the trail from Umatilla County to central Nebraska, and took possession there or at an eastern point of delivery, according to circumstances. Backed by Edward F. Swift of the famous packing family, he was the organizer and manager of the greatest sheep and lamb feeding business and wether trailing business on record. Knollin lived sheep history at its most active and vigorous stage for over a quarter of a century. Previous to 1895 he bought sheep for the Platte River feedlots from most of the early trail drivers, dealing in large numbers with such men as Ormsby, Hershey, Healy, Reynolds, Wood, and Lee and Blewett. From 1895 until 1902 he continued to buy from them, but trailed on his own account as well, supplying other feeders and selling his surplus on the public markets. From 1895 to 1905 he annually drove or shipped as many as half a million head, and he supervised the feeding of fifty thousand head or more in feedlots in Nebraska and Kansas.

#### TRAIL EXPERIENCES

A daily journal of the trail from Oregon was kept by Hartman K. Evans<sup>73</sup> for the year 1882. The main facts regarding this venture have been related, but a few entries showing the daily routine are of interest. Evans occupied the position of trail foreman for the partners, and supervised the movement of the three bands.

*May 29th.* Left Union at 6:30 A.M. and went to La Grande. Found Hamilton (in charge of

one of the bands) camped above town. Went back and met Webb (in charge of a second band). Camped for the night at a lake about three miles from La Grande. Good running stream just below. Feed first rate. Plenty of wood.

*May 30th.* Drove in the morning about three miles and camped above town by a small stream. Had a bad canyon to cross with steep banks where Albee (?) lost five hundred sheep. Went on in the afternoon toward Ladd's Hill. Left the band to go back to La Grande to join Lon (in charge of the third band) tomorrow.

*May 31st.* Joined Lon just before he came to the Albee (Alder) canyon. Camped at noon above town. Drove in the afternoon about 2½ miles and camped at the side of the hill just above stage road. Wagon about four hundred yards below. Sheep very uneasy all night. Good stream of water. No wood. . . .

*June 4th.* Webb started through town (Baker, Oregon) early in the morning, Hamilton coming directly behind him. Both bands were over the bridge before six o'clock. Started back to meet Lon and found him camped about eleven miles from Baker. Found there is better feed to be had by taking right hand road eight miles from town and going by Wingfield.

*June 5th.* From Baker down Pleasant Valley to the left of stage road and Alder Creek until coming to canyon thirteen miles from town. Take hills to left of canyon towards old emigrant road and meet wagon where old emigrant road meets stage road at Straw Ranche. Plenty of wood along Alder Creek. Also poison. We lost five sheep by it. . . .

*June 25th.* Hamilton came in town (Boise, Idaho) with his wagon at twelve o'clock and quit work at two. Hired a man and went out with him to hunt Webb, whom I found camped near stage station, sixteen miles from Boise. Sent Child back to the other band.

*June 26th.* Came to town in the morning and saw Lon. In the evening was accosted by Reidenbo, who said our sheep had been in his field. Told him the ones he meant belonged to Lang and Ryan.

*June 27th.* Was subpoenaed as witness to prove brands on sheep. Case continued in the afternoon till tomorrow. Went out to Child's band and found them camped on creek about twenty-two miles from town and one or two miles from store.

*June 28th.* Came back to town in morning passing Kemmerer's band in field. Damage difficulty settled. Joined Lon and camped close to creek about fifteen miles from town (Black Creek).

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<sup>71</sup> See Biographical Appendix, A. J. Knollin.

<sup>72</sup> Healy, Letter, June 11, 1940.

<sup>73</sup> Evans, "Sheep Trailing From Oregon to Wyoming," 581-92.

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*June 29th.* Brought sheep to creek to water. Camped for noon on creek two and three quarters miles from town. Sheep did not get much water at either one, nor in the evening on Indian Creek where we camped close to store. Water so shallow and muddy sheep would not drink. . . .

*July 13th.* Nooned on headwaters of tributary of Silver Creek about four miles, near ranche and meadow *not fenced*. (Between Big Wood and Little Wood rivers in Idaho.) Sheep crazy for alkali of which there is some there, though not much. . . .

*July 25th.* Left band in morning and came on to Eagle Rock. From Mud Lake there are two trails; one leaving lake and going direct to Market Lake; the other following creek and going to Sand Holes. First is best and shortest trail, but the other not so far without water. Distance between two lakes by shortest trail good twenty miles.

*July 29th.* Webb's band came through in the afternoon and all of his men quit work. He had no difficulty hiring other hands. He followed down road and camped on Willow Creek two miles. Best way to take old Emigrant road from Eagle Rock and strike Willow Creek four miles from town. . . .

*August 3rd.* Watered sheep at first creek and drove altogether six miles, nooning by small stream. Webb passed us at noon. Came three miles and camped above Willow Creek. Child went past in the evening. Saw a good many poisoned sheep (either plant or alkali poisoning). . . .

*August 9th.* Three miles in the morning to first stream beyond Salt Works. Stopped there all the afternoon in order to recruit salted or poisoned sheep of which we had fifty to a hundred sick ones. . . .

*August 14th.* Four miles and a half to top of hill through very thick timber and a hellish steep hill. Nooned on top. Two and a half miles down hill through very bad timber to open country. Camped on Ham's Fork. Pleasant Valley about three miles beyond.<sup>74</sup> Some feed along the creek. . . .

*August 18th.* Went on to Child's camp and was brought back to Lon's<sup>75</sup> by the news that he had shot himself. Camped about four miles in canyon. . . .

*August 21st.* Seven miles in morning to Green River. Good feed all along the bottom. Helped Webb to finish crossing his sheep and laid over in the afternoon.

*September 11th.* Two and a half miles in morning and dry camp one-half mile from the Sweetwater and one-quarter mile from the wire fence. Camped on road one and a half miles from Tom Son's (Sun's) ranche. . . .

*September 13th.* Five miles in morning to store on Sand Creek. Four miles in evening and dry camp.

*September 14th.* Rode on three miles to North Platte. Five miles to creek—four miles to another—six miles to another—five miles to Shirley Basin, five miles to lake, seven miles to water in canyon to right of Basin. One and a half miles to Child's camp. (Evans had left the bands to go on ahead to Laramie.)

On September 26th Child's band of 7,469 head reached Laramie, and three days later Murphy's band of 2,129 came. When the remaining 12,500 arrived at Laramie does not appear in the journal. However, the ten thousand head that had been contracted for sale at Laramie were delivered and Evans shipped twenty-five hundred head to Mexico, Missouri, for corn feeding.<sup>76</sup> The safe arrival of the whole flock was guaranteed by a report in the *Laramie Boomerang*, September 26, that S. H. Kennedy of that city had started dipping the twenty-three thousand head of Homer, Sargent, and Evans, driven from Oregon.

Another interesting drive, in May, 1897, is reported by Kupper, across the Southwest from Ash Fork, Arizona, to the Devil's River in Texas. Her uncle,

<sup>74</sup> A. D. Hoskins. Letter to Agnes Wright Spring, November 4, 1941. Hoskins crossed the same trail as Evans in 1882, within ten days of the same dates. Hoskins says the trail never came as far south as Ham's Fork and feels certain Evans was on La Barge Creek. He remembers, and visited in the late thirties, a fine valley near the head of La Barge Creek, though neither he nor two other sheep men he consulted ever heard it called Pleasant Valley, nor did they know any valley by that name.

<sup>75</sup> According to letter of May 10, 1934, from Hartman K. Evans to Prof. R. H. Burns, University of Wyoming, Laramie, Wyoming. Lon was shot in a peculiar accident. He was leading his horse on the side of a steep hill, the horse being above him. The horse suddenly stopped and shook himself, and in so doing threw Lon's revolver out of the holster attached to the saddle. On striking the ground it was discharged, the bullet going through Lon's thigh. Fortunately it missed arteries and thighbone, so Evans loaded him in the wagon, put cold water on the wound and it healed perfectly so that he could get back in the saddle within two weeks. Apparently Lon's other name was Murphy.

<sup>76</sup> Evans, Letter, April 9, 1934.

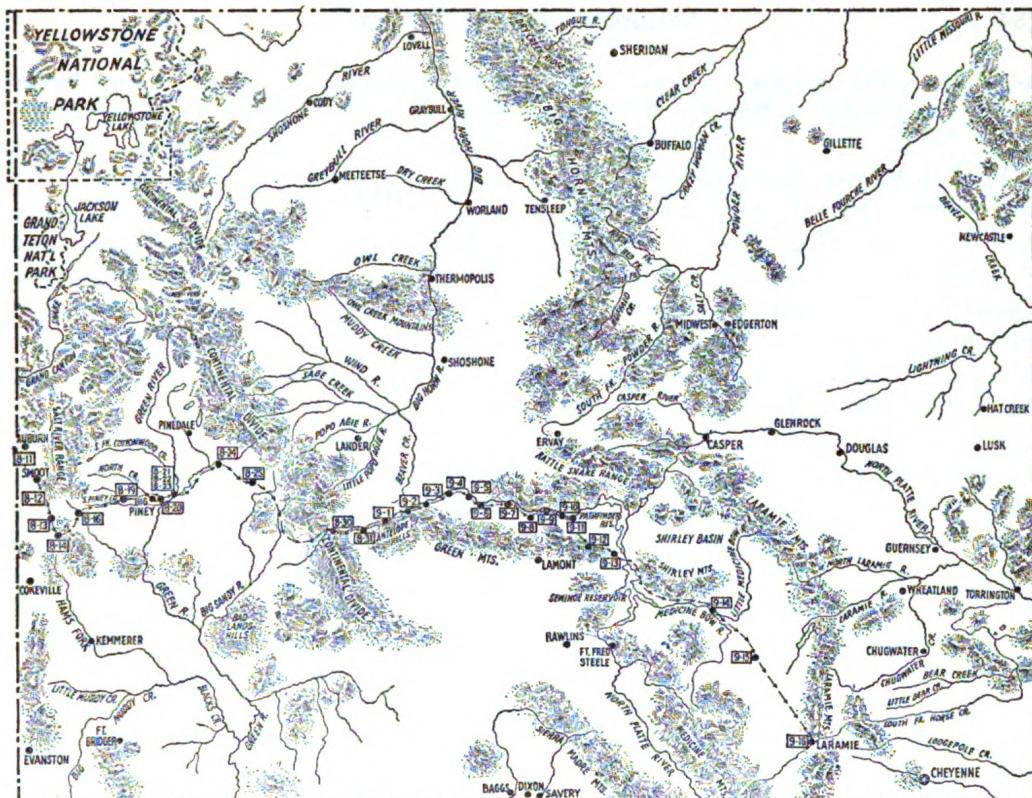


FIG. 67—Sheep trail across Wyoming followed by Evans.

Robert Maudslay, took charge of a band of four thousand head, shipped by rail from the north, at a point about fifty miles above Los Angeles. The sheep were dipped in temporary vats erected on the banks of a little stream alongside Broadway, now one of the busiest thoroughfares in Los Angeles. After clearance by the inspector, they were transferred to the Santa Fe Railroad and unloaded at Ash Fork:

As soon as the sheep were turned on the young grass that was then just beginning to show, they acted like wild things. They scattered like a bunch of quail, and just about as fast. Five minutes after they were turned loose, they covered four square miles of territory, and threatened to be back in California before we could round them up again. . . . It was only after a couple of hours of furious galloping that we got them together. They were almost unmanageable for three or four days. . . . Then I got a wire from Mr. Long saying that three thousand more were on their way and would reach me that night. We had the same experience with this lot, and in three days there was another wire saying that thirty-five hundred more were

on their way, together with another wagon and four or five more horses, making in all a nice little (Long's word) bunch of ten thousand which I was to move eastward into New Mexico, and from there to Devil's River, or somewhere else, according to the condition of the range.<sup>77</sup>

As they moved away from Ash Fork, the flock gradually became steadier, but another hazard of the trail developed—linguistic difficulties. Among thirteen drivers and herders there was a Frenchman who could speak English and Spanish as well as his native language; another Frenchman who could speak French and Basque; and a Basque who clung to his tongue alone.

If I had anything to say to the Basque, I had first to hunt up the Frenchman who spoke English, who would tell it to the Frenchman who spoke Basque, who in turn would translate it into Basque. By the time it reached the Basque it was so garbled that he, being an intelligent

<sup>77</sup> Winifred Kupper, "Sheep Drive in the Nineties," *Sheep and Goat Raiser*, Vol. 26, No. 3 (December, 1945): 40–43, 50.

little fellow, would know that it was wrong, and would come and get it from me first hand, through signs.<sup>78</sup>

As they passed through eastern Arizona, they entered a region where smallpox was raging. Due to the lack of hospitals, railroad cars had been placed on isolated spurs, to substitute for quarantine stations. Maudslay was directing his bands along a course near them when a guard fired a shot to warn him away. Not understanding the significance, Maudslay started to approach for more information when another guard directed him to veer his flocks away, as the wind was blowing across the hospital cars toward them. The word "smallpox" was alone sufficient, so Maudslay galloped off to turn first one and then another band away. This was enough to confirm the worst suspicions of a Mexican herder, who had been alarmed by the original shot. Spying Maudslay's speed, he shouted at the top of his lungs, "Los Indios! Los Indios!" and abandoned his flock to the imagined savagery of an Indian attack.

In the piney woods of the Mogollon Mountains the sheep began to stray, and herding became a serious problem. It was impossible to see more than half of a band at one time, and every few moments a small bunch would become detached. Maudslay spent most of the time hunting these small stray groups for the herders and returning them to their proper bands.

We took the sheep into New Mexico and across, sometimes driving at night through desert stretches, holding the sheep in uneasy rest at noon time, allowing them to graze on what they could find in late evening and early morning, and hoping for water. Across mountain, brush, tableland, desert, and prairie, the way led for day upon day toward our destination in Texas. We reached the Pecos River . . . at last. The sheep were crossed to the east side and kept there on the way down, but the wagons had to cross and recross several times in following a faintly defined wagon-trail down stream. . . . The distance between the Pecos and Devil's

River is comparatively short. On the Devil's River there was stationary range at last, and rest.<sup>79</sup>

#### LAST DAYS ON THE GREAT TRAILS

In the early days in Nebraska, one could drive the sheep to Fremont or farther (Coyle once drove to Valley,<sup>80</sup> and Ormsby<sup>81</sup> to Fremont). But as the country settled, Grand Island, Gibbon, North Platte, Ogallala, Julesburg, and Sidney became successively the end of the trail and the railroad loading point. To reach Kansas feedlots on the Union Pacific or Santa Fe, it was necessary to load in Colorado at Deer Trail or Las Animas. The bands normally arrived at their destinations by November, usually with much more weight and size than when purchased.

Not all the trail sheep went into Nebraska and Kansas, however, and many were driven across Montana to wheatfields in North Dakota, to be shipped later to feedlots around St. Paul, Minnesota. The principal operator on this last route was J. B. Long of Great Falls, but many feeders from around St. Paul also used the system. At the peak of Long's operation he handled more than sixty thousand head annually that used the Idaho-Montana trail, while his competitors built the total up to more than twice as many.<sup>82</sup>

When the trail flocks first had to move by rail in Nebraska, the railroads had no double-decked cars and each shipper had to put in his own extra deck.<sup>83</sup> He would hire cars for his shipping season,

<sup>78</sup> Kupper, "Sheep Drive in the Nineties."

<sup>79</sup> *Ibid.* Further experiences of Maudslay on an earlier trail drive are recounted in Kupper's, *The Golden Hoof*, 98-105.

<sup>80</sup> Charles Coyle, Wm. R. Smith Sheep Company, Omaha, Nebraska. Interview with author, August 2, 1938.

<sup>81</sup> Ormsby, Interview, May 29, 1940.

<sup>82</sup> Clary, Interview, January 18, 1939.

<sup>83</sup> Ormsby, Interview, May 29, 1940.

install the decks, and the railroads would run a shuttle service with these cars from the loading point to the feedlots, back and forth until all of that particular shipper's bands were transported. Then the shipper removed his extra decks for use again the following season.

Reliable statistics of the sheep that crossed the eastbound trails are nonexistent. Perhaps there are no ideas that seem more vague, either as to the numbers driven per year or the number of years the trails were used. Bacon<sup>84</sup> estimated that a million and a half head crossed Idaho from Oregon and California during the period 1885-1900. Coyle, on the other hand,<sup>85</sup> estimated that Knollin in the seventeen years he operated on the trail handled practically this volume of sheep himself—between a million and a quarter and a million and a half head. Black<sup>86</sup> reports a single partnership transaction with Knollin in 1897 in which eighty-four thousand Oregon wethers were trailed from Ontario, Oregon, to Tennessee Pass, Colorado.

In 1898 Ormsby<sup>87</sup> reports that he trailed 30,000 to 35,000 head; Healy, about 20,000; Hershey and Boettcher, about 25,000; Reynolds Brothers, about 15,000; Knollin, about 85,000; and other smaller operators about 50,000—a total of 225,000 to 230,000 head. Smith<sup>88</sup> quotes a trail driver with Lee and Reynolds of Valley, Nebraska: "one year . . . on the trail 110 bands of sheep left Oregon and Nevada and crossed Snake River at American Falls, en route to Nebraska and Wyoming. They were mostly seventy-five hundred per band." This would mean that approximately eight hundred thousand head came eastward along the old Oregon trail or paralleling it that year.

The only collected contemporary estimates are presented by Gordon,<sup>89</sup> 588,000 head on all eastbound trails in 1880.

These statistics suggest that a minimum estimate of fifteen million head driven east in the more than three-decade trail era is a conservative, rather than fantastic figure.

\* \* \*

When the great trails eastward opened, only California and New Mexico of the dominant western sheep states of today possessed more than a nominal number of sheep. When the trails closed about 1900, Montana had more than six million sheep, Wyoming more than five million, New Mexico more than four million, Utah, Idaho and Oregon more than three million each, and California and Colorado more than two million each. During this period California exported on the hoof or by rail between four and five million head; New Mexico and Oregon, between three and four million each.

Sheep driving called for none of the spectacular action required of the cowboy. The qualities that won were mental—planning, perseverance, patience—and such traits attract no box-office receipts at theaters nor stimulate scenarios for "western thrillers." The drama of the West belongs to the trapper, soldier, miner, and cowboy. But its economic foundation was established by the drivers of the great sheep trails, whose activities in three short decades completely shifted the center of surplus wool production from the eastern farm belt to the broad region spreading from the High Plains to the Pacific Coast.

<sup>84</sup> O. F. Bacon, Boise, Idaho. Interview with author, May 28, 1940.

<sup>85</sup> Coyle, Interview, August 2, 1938.

<sup>86</sup> Harry B. Black, St. Joseph, Missouri. Letter to author, September 16, 1938.

<sup>87</sup> Ormsby, Interview, May 29, 1940.

<sup>88</sup> George C. Smith, Letter, November 4, 1938.

<sup>89</sup> Gordon, "Report on Cattle, Sheep, and Swine," *Tenth United States Census*, III:954-1101.

*The greatest factory on this earth is the lowly sheep.  
Its raw materials are the grasses and weeds that grow on  
our mountains and prairies, and its product of essential  
food and raiment goes farther than any other single factory  
in the world to meet the needs of mankind.*

—Senator Charles H. Williams of Montana

♦ 14 ♦

## Taking Over the Territories

**G**REAT gaps between the frontier of settlement and the Pacific States existed at the end of the Civil War. In the intervening regions, high along the backbone of the continent, the plains and intermountain areas seemed better adapted to the pastoral arts than to other agriculture. Hence the obvious move was to introduce sheep and cattle, and the final quarter of the century was devoted to populating these districts.

Two cradles of sheep breeding existed which could supply the needed flocks. New Mexico served the eastern area, while California and Oregon contributed to the new territories of Idaho and Montana, as well as western Wyoming. The development of this section permanently transferred surplus sheep production from the East to the new West. When the census was tabulated in 1900, our two most populous sheep territories—Montana and Wyoming—lay in a region which failed to retain its share of the early westward migration. In 1866 the West contributed 15 per cent of the domestic clip; by 1873 it produced 25 per cent; and by 1885, more than 45 per cent. Two-fifths of the sheep were in the western flock-raising states in 1880; by 1890 more than half were there.

\* \* \*

Sheep pursued the prospectors into Idaho, just as they went to California in '49. Thirteen years after Sutter's Mill, gold was "struck" in the Clearwater

country, closely followed by the race into Montana. The ovine movements which these discoveries initiated led to the permanent population of each area.

### IDAHO

As in other territories on the western trails, Idaho did not take up sheep raising until it had served for many years as an avenue of travel for migrating flocks. The great trails to Oregon and California crossed its southern areas, and the later trails from the Coast States to Montana, Wyoming, and Colorado utilized additional connections with the great stem of traffic which paralleled the Snake River. Men behind these long drives early appreciated Idaho's attractions for the wool grower, though few availed themselves of its opportunities. The early history was a record of movement.

The Oregon Trail entered the southeast corner of the territory, north of Bear River, and led to Fort Hall, thence down the south bank of the Snake. Numbers were small during the westward movement, but when the great trail bands started eastward out of California and Oregon, hundreds of thousands of sheep crossed the region.

The first flocks to be established in Idaho were brought by the Mormons. Montana writers claimed that the twelve head each of cattle and sheep which

Thomas Harris took to Stephensville, Montana, in 1857, came from Lemhi,<sup>1</sup> but the records of the Mormon Church indicate that the Lemhi settlers had no sheep at all. In the spring of 1860, thirteen Mormon families set up a permanent colony at Franklin, just north of the Utah line, where a military outpost had previously existed. They came up via the Cache Valley, and brought enough sheep to provide wool for clothing.

Sheep were also an important possession of the settlers in the Bear Lake Valley in 1863. Apostle C. C. Rich<sup>2</sup> established Paris in that year, and throughout the remainder of the decade, supervised the supplying of flocks in the later settlements of the region. In 1877 he told the pioneers that their wool under no circumstances should be sent from the valley for manufacture, but that it should be handled by their own skilled workers—right at home. Sheep, and wool for spinning and weaving, were essential not only to comfort in that cold altitude, but to actual survival.<sup>3</sup>

#### THE MINING CAMPS

Oregon sheep were driven to the mines in the Clearwater and Salmon River districts in the early sixties, though they were apparently intended for the miners' food. The rugged nature of the region made it impossible, until the valleys were developed, to provide enough winter feedstuffs to run either flocks of sheep or herds of cattle.

The mining "strike" at Silver City, in southwestern Idaho, about the same date, led to the establishment of a permanent flock. A few individuals foresaw the end of the mining boom at the close of the Civil War, and decided not to be stranded. One of them, G. C. Johnston, an eastern mining engineer operating there, was the leader of the movement.<sup>4</sup> In 1865 or 1866, he brought

a band into the Owyhee district from the Jordan Valley in Oregon.

This importation was preliminary to many agricultural activities in western Idaho. Hay was put up in the Boise and Payette valleys along the Weiser River in 1866.<sup>5</sup> Several small irrigating ditches were built and some grain was ripened, but these products were used for horses and cattle rather than sheep. The toughest task in clearing fields for cultivation was to grub out the sagebrush. Flocks could reduce this labor, since they could make a profitable use of the plant. Hence sheep became the most successful item of agricultural production in the Owyhee country; or wherever irrigation was difficult or expensive.

#### TEMPORARY SHEEP SETTLEMENTS

The Holladay stage route operated between Salt Lake City and Helena in the early sixties, but up to 1866 no one seems to have observed the agricultural possibilities in eastern Idaho along the route it traversed. A few settlers had worked into Preston, or into the Little Malad Valley in Oneida County. North of there no one believed that cropping was possible, and too many Indians remained to permit successful stock raising. During the latter half of the decade, however, some venturesome individuals brought cattle to the vicinity

<sup>1</sup> Sutherlin Brothers, White Sulphur Springs, Montana. Letter, March 13, 1897, to W. E. Sanders in Montana State Historical Library. They state that Thomas Harris brought the very first sheep and cattle into the Bitterroot Valley in 1857 from Utah, but according to Major John Owens' diary the only absence from Stephensville by Harris, when any livestock might possibly have been introduced, was a ten day trip to Lemhi, Idaho. Harris was in Utah for six months in 1856 and the Sutherlins probably erred in the year quoted.

<sup>2</sup> Grandfather of Roscoe C. Rich, Burley, Idaho, President of the National Wool Growers' Association, 1935-40.

<sup>3</sup> John Henry Evans, *Charles Coulson Rich, Pioneer Builder of the West*, 329.

<sup>4</sup> Claar, Letter, April 10, 1939.

<sup>5</sup> Hailey, *The History of Idaho*, 140.

of the stage stations, and these were followed by occasional sheep. Several Montanans in the Deer Lodge Valley made a practice of buying worn-out horses, cattle, and sheep along the California Trail. These men herded the animals up to their grasslands to winter, at the same time that they freighted their supply wagons. A few footsore stock were left at the Idaho stage stations, that made scattered nuclei for flocks and herds. The Indian troubles several years later, especially the Bannock War of 1878 and the Sheep-Eater War, wiped out these undertakings.

About 1869, the Heglar Brothers trailed sheep into southwestern Idaho from California where they wintered along the Snake River, but their losses were so heavy that they could not remain in the business.<sup>6</sup> John Hailey,<sup>7</sup> an early-day operator of pack trains and of freight and stage lines from Umatilla to Boise, also trailed several small flocks into Idaho during the late sixties and put them on range near Boise. Somewhat later he moved his flocks into the Big Wood River country south of Ketchum and modern Sun Valley. A loading station on the railroad, named for him, became one of the great shipping points for fat market lambs in later years.

#### SHEEP TRAILS IN IDAHO

After 1870 Idaho proved to be a sheep vacuum into which many small flocks were drawn. The principal trails entered the territory from the west and south and led out to the northeast and southeast. The trails from Oregon to Montana originated in Umatilla County, Oregon,<sup>8</sup> and entered Idaho at Olds Ferry, ten miles west of Weiser. Thereafter it crossed the Payette and Boise rivers and continued up Indian and Ten Mile creeks to the Little Camas and the Big Camas prairies. Passing the Wood rivers,

it led by the Lost River Sinks to Birch Creek, the Medicine Lodge, and on over Monida Pass or Lemhi Pass, to Montana and the Beaverhead Valley.

When the trail flocks were headed for Wyoming they usually came farther down the Snake in Oregon before they entered Idaho. The Owyhee was crossed above its mouth, and the trail then continued on the south side of the Snake until it reached the Port Neuf. Thence it wound across to the Bear River, which it followed past Soda Springs and Montpelier to the Green River in western Wyoming. Sometimes the Wyoming drivers followed the Montana trail on the north side of the Snake as far as the Big Wood River, and then went down it until a convenient crossing and cutoff to the Little Wood River and the Snake could be reached. It then led eastward on the north side of the Snake until it could cross to the Port Neuf.

The trail from California usually entered Idaho along Goose Creek on the southern boundary, struck over to the Raft River and followed south of the Snake, if going to Wyoming, or up to the Big Camas Prairie, if headed for Montana. On some occasions the Montana-bound flocks went up the east bank of the Snake as far as Eagle Rock (modern Idaho Falls) and crossed there.

#### THE TURBULENT SEVENTIES

In 1870 the census reported only 1,021 sheep in Idaho, with a wool clip of only 3,415 pounds. During the decade which followed there was little growth in comparison with Montana and Wyoming, though the population had increased to 27,326 head by 1880.

<sup>6</sup> W. H. Philbrick, American Falls, Idaho. Letter to M. C. Claar, March 23, 1938.

<sup>7</sup> James H. Hawley, *History of Idaho*, Vol. 1: 467.

<sup>8</sup> Gordon, "Report on Cattle, Sheep, and Swine," *Tenth United States Census*, III:1088.

The panic of 1873 was forecast by hard times in Idaho. The placers were becoming exhausted during the last three years of the preceding decade, and thousands of miners left in search of new fields. Others commenced farming and stock raising<sup>9</sup> in nearby valleys, in competition with men already producing a surplus for the local market. Farming suffered more from this shift of personnel than stock raising, and fruit, grain, and hay growing declined, while the numbers of livestock increased.<sup>10</sup> The lack of adequate transportation stagnated general business.

Due to the less discriminating demand of those days, livestock was not as perishable a product as at present, and growers could hold back their stock with smaller capital loss. Also they could graze them cheaply on the public domain. Hence prices of cattle, horses, and mules held up fairly well. Sheep suffered more because the local demand for mutton declined, and there was no local wool market. Numbers of sheep rose immediately, though all classes of livestock tended to accumulate.

In the Boise region and old Ada County (modern Ada, Canyon, and Washington counties) there was good range, but throughout other parts of the territory much of the best range needed for these surplus animals became unusable because of savage depredations. Livestock often was slaughtered wantonly without being utilized for food. The Bannock Indian War of 1878 started with raids against the settlers on the Camas Prairie west of modern Dubois. The Indians were very fond of the camas root, and the releasing of hogs by settlers where they could uproot the Indians' essential food was an aggravation greater than the white settlers themselves would have borne. As the Bannocks moved westward across Idaho they destroyed several small flocks and killed the flock-

masters. The Indians were dispersed by the end of the summer, and the partial recovery from the panic helped the Idaho market. The net increase in sheep was greatest in the vicinity of the new mining camps around Bellevue, Hailey, and Ketchum.

The outstanding sheep operator of the seventies was Robert Noble of Reynolds Creek in the Owyhee country. In 1875 he purchased his first sheep from G. C. Johnson of Silver City. Noble was an extremely efficient operator and increased his flocks to more than sixty thousand ewes, while he handled as many as eighty thousand wethers simultaneously in his largest year. He marketed his wool so skillfully that when he retired in 1904, he not only owned much productive real estate but was rated at a net worth of more than a million dollars. He is reputed to have received the largest single check ever written to a wool grower (over a half million dollars), when he sold out to Haley and Saunders in 1904.<sup>11</sup>

#### ESTABLISHING SEASONAL ROUTINES

Permanent flocks developed at the two southern ends of the territory. In the east the Bear, Malad, and Raft River valleys naturally attracted sheepmen, although cattle competition was intense in the last-named section. In the west, the Boise, Payette, and Weiser River valleys settled most easily. These two regions began to be occupied by homesteaders in large numbers during the seventies, but it was not until the next decade that the Camas Prairies and the Wood River area attracted permanent occupants. Then the intervening region along the Snake, the Owyhee country of southwestern Idaho, and the reaches

<sup>9</sup> Hailey, *The History of Idaho*, 153.

<sup>10</sup> *Ibid.*, 142-43.

<sup>11</sup> Claar, Letter, April 10, 1939.

of the Upper Snake, west of the Tetons and Yellowstone Park, began to prove attractive.

To much of this territory the first settlers brought both cattle and sheep, but the sheep developed more slowly. It was more efficient to locate the home ranches of the sheep in the valleys and the newly irrigated sections (because of winter conditions), and in summer to trail to the high mountain meadows. Sheep produced more income in the valleys than did cattle, but the ewes could not lamb satisfactorily in the higher altitudes. Hence a natural division of headquarters lands gradually came about, with the sheep on the lower ground and the cattle in the foothills.

In general, the sheep were grazed during the entire year, basing on the desert, the sheltered valleys, and the lower range country during the winter. All of the commercially important flocks were in the southern part of the state, and by the mid-eighties a routine of management had developed that persisted with slight modifications until the present day. For about three months—mid-December to mid-March—the sheep were grazed on the desert and occasionally fed hay. The amount of such feeding was small in the seventies and eighties, but by 1900 to 1910 it had become quite significant, since it proved to be the chief factor in advancing the lambing season. During the later years, some flocks were grazed on pasture, alfalfa, or grain stubble leased from farmers, and by 1915 beet tops were utilized wherever available.

Most of the winter feeding grounds came to be leased each year by the same sheep men, who erected permanent sheds and fences on the rented land. The majority of these were along the Snake River or its tributaries, for the winter headquarters required water, shelter, and protection from prowling

coyotes. Also they had to be immediately available in case of winter storms. Lambing began in early February and was completed by mid-March. When the lambs were finally "claimed," the mothers and young were divided into bands, with the earliest lambs in the first band and so on.

As the season advanced, they spread over the open country, now public domain or leased state lands. Under the sagebrush there they found a nutritious short grass that gave exceptional results. In the early part of June, following shearing, they began the ascent of the mountains to what is now the National Forests, attaining eight to nine thousand feet of altitude and following the retreating line of snow. The oldest bands went to the lowest and earliest ranges so as to be ready for market first. Each successive age moved to the next range as it became available, passing through those bands preceding it. The lambs were cut from the ewes and marketed at the proper season, but by October the remainder of the bands were ready to start for the home range, reversing the order in which each class of country was utilized. During a season, a flock might travel hundreds of miles.<sup>12</sup>

#### THE BOOMING EIGHTIES

Beginning in the early eighties, bands of two to ten thousand head were trailed into and across Idaho, and the movement continued quite regularly up to 1900. Some bands came from Utah into the Preston and Soda Springs country, or into the Upper Snake River Valley around Sugar City and Rexburg. Many more came through Nevada from California, and spread out over the Owyhee and Bruneau River countries, covering all the tributaries of the Snake in the

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<sup>12</sup>C. J. Brosnan, *History of the State of Idaho*, 153.

southwestern part of the state. Still others from northern California reached the Snake from southern Oregon at several points south of the Boise River. However, the trail out of northern Oregon provided as many sheep for Idaho as the other three sources combined.

The sheep industry began to boom in 1882 and 1883 with the advent of the railroads. Merino wethers, thirty-six hundred in number, were shipped into the Big Wood River Valley from Heppner, Oregon, in the spring of 1886, and were re-shipped as a trainload to Nebraska the same fall. Also during this season, L. L. Ormsby, with his foreman, S. E. Todd, trailed ten thousand Oregon wethers into the Boise country.

One of Idaho's most prominent sheepmen started his flock in the early part of this decade. Frank Gooding, later a United States senator and president of the National Wool Growers' Association, was raising turkeys in California in 1883, when the railroad built north to Ketchum on the Big Wood River. He assumed a lumber contract and out of the profits purchased a thousand sheep, mixed wethers and ewes. His brother, Fred Gooding, came to Ketchum also, and the two started a butcher shop. Both businesses grew. Soon they were operating three or four bands and heading into the Shoshone country for the winter. In the spring of 1888, Frank Gooding bought out his brother.

After establishing a band of Oregon Merino ewes north of Twin Falls, Fred decided to enter business himself. By 1888, L. L. Ormsby had purchased a ranch near Shoshone and placed on it a large flock of mixed wethers and ewes, twenty-five hundred of the latter being yearlings. Fred Gooding cut out a thousand of the young ewes at \$2.50 per head (for which he paid cash), and then Ormsby sold him the remaining fifteen hundred, to be paid for when marketed.

The deal was transacted without a mortgage or scrap of paper to record the contract. This method of trading was customary between honorable men in those days, and the whole sum was paid Ormsby in the fall. This made a second Gooding in the sheep business and it was not long until Thomas Gooding, another brother, became active. The Gooding Merinos made them the leading breeders of this region.<sup>18</sup>

John Hailey expanded his operations in 1888 also, in the Boise Basin, while he firmly established his summer range in the Big Wood River country from Hailey northward. Other breeding flocks began developing in southern Idaho in 1889, but the hard winter of 1889-90 temporarily paralyzed the young industry.

During the eighties there was also some movement of sheep back and forth over the Idaho-Utah line, especially in the eastern part of the state. These operators lived in Utah. They would start out on the trail with their flocks and camp wagons in the early spring, coming up through the valley of eastern Idaho, crossing the Snake, and grazing along its north bank until north of Twin Falls, when they would drift down toward Glenn's Ferry or up to the Boise River Flats. Here they would winter along the river bottoms. The succeeding spring they would start back, circling up into the Big Wood River Valley, perhaps as far north as Hailey. Then they would drive eastward along the trail into Wyoming, where they would entrain their lambs and turn back into Utah.

In the mid-eighties sheep came into the Lost River section and other valleys to the northwest of the Lava Beds and Snake River Desert. Joseph Rogers took

<sup>18</sup> D. Sidney Smith, Shoshone, Idaho. Letter to author, July 26, 1939.

a small band into the Lost River Valley in the fall of 1883, and J. D. ("Dave") Wood trailed ten thousand head of Oregon wethers into the Pahsimeroi Valley the next summer,<sup>14</sup> with headquarters ten miles above May.

"Joe" Rogers became a large operator in his prime, having six to eight bands of ewes and several bands of wethers. In his early days he marketed most of his sheep locally to the butchers that supplied the mines above the sources of Big Lost River. But in the early nineties his foreman, Pat Lynch, took a band of five thousand wethers into Wyoming where they were sold to another trail driver. Thereafter he increased the trading and contracting side of his business.

During the late eighties several Utah and Nevada operators were entering the mountainous country north of the Idaho boundary, and by the end of the decade a number of small Utah sheepmen were permanently established in the country around Oakley.

#### THE HECTIC NINETIES

Despite the bad winter of 1889–90, the sheep business was firmly implanted in Idaho that year. The foundation for production had been well laid geographically, and the Census of 1890 showed 357,712 sheep in the state with a current wool production of 2,119,242 pounds. Furthermore, this production was increasing rapidly when the presidential election of 1892 knocked the bottom from under the wool market.

The McKinley Tariff of 1889 had introduced stability into the wool business, but the threat of free trade created a panic. Illustrative of the situation was an incident concerning W. H. Philbrick of American Falls. Philbrick was an experienced trader as well as sheep grower and had producing interests in New Mexico, Utah, and Canada when

the decade opened. As the election approached in 1892 he began dickering with an Idaho grower, who was a Democrat, to buy his Canadian flock. A deal proved difficult, as they were still twenty-five cents per head apart on the day before election. Philbrick arranged by telegraph with a New York friend to wire the election results as soon as they seemed at all certain. Going to a nearby railroad station he conspired with the operator to waken him the moment that the message arrived.

About three A.M. it came, so Philbrick mounted a pony and rode twenty miles to the other man's headquarters. He succeeded in making it appear that he had just come in from his own sheep camp and had decided to sell the Canadian sheep at the price he had previously refused. The deal was completed and he avoided the disastrous drop in sheep prices that characterized the panic of '93. Even the best sheep could not be sold at a dollar per head when the debacle was its worst.<sup>15</sup>

Many prominent flocks that continued up to the present day were established during this decade. "Patsy" Healy (of Healy and Patterson), John McMillan and Sons, Thomas McMillan, and L. L. Ormsby had permanent locations or connections at Boise<sup>16</sup> by 1893, although Healy maintained his chief headquarters

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<sup>14</sup> Frank Cook, Challis, Idaho. Interview with author, May 28, 1940. Cook was a pioneer freighter and teamster in that region. L. L. Ormsby dates Wood's advent into the Pahsimeroi Valley as 1888.

<sup>15</sup> O. F. Bacon, Interview with A. H. Caine, March 8, 1940.

<sup>16</sup> The following operators were also in the Boise district—Charles Boun, E. D. Van Sicklen, W. C. Cleveland, Joseph De Haven, Ivan and James Poteet, John Gary, Thomas Nipper, Robert Aikman, John Urango, Robert Chatten, Wm. Jones, Jack Galsey, Brown and Stewart, Coon and Steunenberg, James Ballantyne and Sons, Joseph Pence, Ed Paine, and Ted, Andy, Jim, and Bob Johnson. See Claar, *Livestock Digest*, Ogden, Utah, December 20, 1932.

at Ogden.<sup>17</sup> Around Mountain Home was Will Montgomery, first secretary of the Idaho Wool Growers' Association, with John Fletcher as a partner. Also in this region were Joe and Milton Bengocheo, John Sibbal, Tom Melon, Frank Avelier, and John and Arthur Pence.

In the Weiser district were Jim Fisher, Billy Nealy, George Nesbit and Ed Branton. R. H. Robb was at Horseshoe Bend and Ed Short at Payette. The central district was represented by Frank, Fred, and Thomas Gooding of Gooding, and John Curran and Son of Hagerman. In the eastern part of the state Heber and "Billy" Crane were at Montpelier, Lew Swenson at St. Anthony, Denning and Clark at Dubois, W. W. Taylor at Driggs, Eph Ricks at Sugar City, J. D. Wood at Challis, and the Largilliere Company at Soda Springs.<sup>18</sup>

About 1895, O. F. Bacon began to build up at Bruneau. "Patsy" Healy put up the money for fifty-two hundred ewes in which Bacon received a half interest. In August of the same year Bacon also bought forty-two hundred more ewes in the Weiser section at \$1.45 per head. Approximately nine thousand ewes were wintered and their lambs sold at \$1.25 per head in the spring of 1896, with a thousand head out at a dollar. The wool, however, brought only five and a quarter cents.

Bacon therefore decided to breed for heavier fleeces, and bought some Cotswold and Lincoln rams from John Houtz the following fall. He summered his flock near Soda Springs, but trailed back to Bruneau that fall. His ewes began to lamb on the desert about March 25. Some scab was found, so he had to hold the flock close to the winter range. That spring he marked about 82 per cent of lambs and moved over to Mountain City, Nevada, for the summer. In the fall, "Patsy" Healy thought these lambs to be the best he had seen so far and sold

between six and seven thousand head on his word alone to A. J. Knollin, at \$2.25 per head. Bacon trailed them to Halleck, Nevada, where they were shipped to the Nebraska feedlots operated by Edward Swift of Chicago and Mr. Knollin.

He used the same bucks again in the fall of 1897, and although his next lamb crop was light, due to a stormy spring, he received about \$3 per head when marketed that fall. In 1899 he lambed nine thousand ewes near Duck Valley and the Nevada state line, and marked more than ten thousand lambs. The shearers arrived too early and the shorn ewes sustained some loss, but he got a good price after summering at Soda Springs and again sold the lambs and ewes (the latter at \$2.50 per head) to A. J. Knollin. The good years had enabled him to pay for nine thousand ewes, with 10 per cent interest on the money borrowed and a profit for himself.

Expecting to get out of the sheep business, he retained only cut-back lambs.<sup>19</sup> With these as a nucleus he bought seventy-five hundred ewes from the Coates outfit, put in dipping vats and cleaned up the scab. He was then able to go north of the Snake River and gain the advantage of grazing on the Camas Prairie. As a result, he continued his operations and by 1904-05 was lambing about twelve thousand ewes on the north side of Snake River, ranging from Soldier Mountain to the Stanley Basin.

In the fall of 1905 he and a man named Cleveland went to Canada and bought their first black-faced rams. In 1907 he sold out to L. L. Ormsby, twelve thou-

<sup>17</sup> Claar, *Livestock Digest*, December 20, 1932.

<sup>18</sup> Others in the east included Charles LeFever and Peter G. Johnston of Blackfoot; Jabez Ritchie of Idaho Falls; and Douglas Valentine of Soda Springs. See Claar, *Livestock Digest*, December 20, 1932.

<sup>19</sup> Bacon, Interview with Caine, March 8, 1940.

sand ewes at \$3 per head, and the market was so strong in July (ahead of the panic that fall) that the lambs at the side of the ewes were able to pay the entire bill. At the same time Bacon was in partnership with Urango brothers, handling a flock of six thousand sheep. This was not enough to satisfy him after a brief respite, so he bought another twelve thousand ewe outfit. He carried this until 1912-13 when he sold it to his son, W. Clyde Bacon of Twin Falls, and kept only the Desert Sheep Company.

One revolutionary factor of this decade was the advent of the sheep wagon. Previously the Idaho herders had cooked their meals over the open fire, traveled on foot in all kinds of weather over all kinds of trails, and slept along stream banks or in the lee of snowdrifts. Curiously enough they complained that those early sheep wagons were "cold" and that they were far from practical. However, it was easy to demonstrate their value in the valleys at the home ranches, and once the herders became accustomed to them there, they took the wagons up into the summer ranges as well.

#### MODERN PHASES

The modern phase of sheep production in Idaho developed from the practice of shed lambing. Under this system the earliest lambs are sent to market before the bands go to the mountains for summer grazing. Those that cannot be slaughtered are enough larger, when sold as feeders in the fall, to pay for the extra expense. With the development of early marketing the commercial breeders started using black-faced rams in the period preceding the first World War, and Shropshires, Hampshires, and Suffolks were all chosen. These crosses made lambs that fattened well while suckling, and breeders who wanted to use the crossbred ewes introduced Cots-

wold, Lincoln, Romney, and Corriedale bucks.

Idaho sheepmen have always exercised an important influence in the National Wool Growers' Association. Frank Gooding, Frank Hagenbarth, and Roscoe Rich were national presidents, and for a number of years Dr. S. W. McClure was national secretary. One of the largest commercial producers of the United States was Andrew J. Little<sup>20</sup> of Emmett, who owned between 165,000 and 175,000 head at the peak of his operations. Great trail operators like L. L. Ormsby and A. J. Knollin were located in Idaho, while the Butterfield Sheep Company of Weiser was almost without a rival in its influence on western sheep breeding.

#### MONTANA

Religion and gold provided the joint incentives that attracted sheep to Montana. Priest and prospector, with differing motives, created the early markets for wool and mutton. The representatives of the church were chiefly interested in clothing their converts; the prospector was concerned with meat for his own stomach.

Priority in introducing sheep is difficult to establish. One story, unconfirmed, is that Father Ravalli trailed sheep and cattle from Fort Bridger to St. Mary's Mission in the Bitterroot Valley, during the fall of 1847. The Mission records are incomplete, but Jim Bridger did have a few New Mexican sheep and goats at his Wyoming fort during that year.

Another incident, ten years later,<sup>21</sup> also contains discrepancies. Thomas Harris, a pioneer farmer of the Bitterroot Valley, is said to have driven twelve head each of sheep and cattle from Lemhi, Idaho in 1857. Harris' partner, Major

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<sup>20</sup> See Biographical Appendix, Andrew J. Little.

<sup>21</sup> Sutherlin Brothers, Letter, March 13, 1897.

John Owen, kept a diary,<sup>22</sup> which indicates that Harris' only absence that year, beyond the limits of modern Montana, was between the morning of July 11 and the early afternoon of July 20, when he made a trip to Fort Lemhi. The round trip distance was well over two hundred miles and over high passes. Even under the most extreme pressure he could hardly have driven two kinds of livestock unaided during the elapsed time. Besides, the records of the Mormon Church indicate that the Fort Lemhi colony had no sheep at all. The previous year, however, Harris made a trip to Utah between April 30 and November, and he might have obtained such livestock then. Major Owen was absent from headquarters, freighting supplies from Fort Benton, when Harris got back, so his return is not mentioned.

It has also been asserted that the famous Montana outlaw, Henry Plummer, found sheep and other livestock in 1861 at Fort Shaw, maintained by the Indian Service on Sun River. But the farm records indicate that only crop growing was attempted at that date.

The rich gold strikes in Montana in 1862 and 1863 led several individuals to drive sheep from California and Oregon, to be sold for mutton at the new camps. While the majority were used for food, Henry Sieben<sup>23</sup> remembered that a few ewes escaped the block, and that, like old burros, they remained in the vicinity of the mines, without care.

The first authentic colonizing with sheep came in 1867. The Jesuit fathers trailed three hundred head from Oregon over the Mullan Road to St. Peter's Mission, about ten miles west of the modern village of Cascade, on the Missouri River below Helena. They were wintered at the Mission that season, but the following spring were taken to the "Priest Ranch" (also called the "Buffalo Bill Ranch") in the lower part of the

Little Prickly Pear Valley. The ewes lambed here,<sup>24</sup> but some of the sheep were lost to the coyotes, and Father Minetray soon disposed of the entire flock to Helena butchers.

There may have been a few breeding sheep in the Deer Lodge country in the late sixties. A man named Dobbins and Conrad Kohrs each had a few head near Deer Lodge just after 1867. Between 1868 and 1870, both sheep and cattle crowded into the Sun River Valley, but the sheep were principally wethers, of poor quality and with light fleeces.<sup>25</sup> Robert Ford (of Great Falls) and Thomas Dunn were the pioneers with breeding flocks in this valley in 1871.

#### THE BEAVERHEAD COUNTRY

The first permanent sheep ranch was established near Dillon in late 1869. In July of that year John F. Bishop and Richard Reynolds went to The Dalles in Oregon, where they purchased fifteen hundred sheep. On November 17, 1869, they reached John Selway's ranch in the Beaverhead Valley and wintered on Birch Creek. The 1870 clip from this flock was the first commercial wool shipped out of Montana. Colonel Charles Broadwater, a pioneer dealer and cattleman who came to the Deer Lodge Valley in 1863 (and made the famous escape with thirty pounds of gold dust from the bandits George Ives and Johnny Cooper), purchased these fleeces at nineteen cents per pound,

<sup>22</sup> Major John Owen, *The Journals and Letters of* —. In the *Rocky Mountain Husbandman*, November 12, 1885:1, Harris states that he bought nine head of sheep from the California-bound flock of Nelson McMahon. Harris' own diary did not commence until 1863.

<sup>23</sup> Sieben, Interview, January 19, 1936.

<sup>24</sup> David Hilger, Librarian, Montana State Historical Library, Helena. Interview with author, January 18, 1940. As a boy of ten years, in May, 1868, Hilger herded this flock during the lambing season at the Priest Ranch. Also MSS., Library, Montana State Historical Society, Helena.

<sup>25</sup> *Ibid.*

hauled them more than three hundred miles overland to Corinne, Utah, and shipped by rail from there to St. Louis.<sup>26</sup>

Still another famous flock totaling twenty-four hundred head came to the Beaverhead country in 1871 when Pindexter and Orr settled near Dillon. Philip H. Pindexter and William C. Orr formed a partnership in California and came to Montana in 1862. They first tried mining, but acquired a ranch on Blacktail Deer Creek before the year closed. The first official brand in the state was issued to the P & O Ranch and it is still in use. In the mid-eighties they were reputed to have one of the two top registered Merino flocks in Montana<sup>27</sup> and held forty thousand acres of patented land.

#### EARLY MONTANA STATISTICS

The annual report of the Auditor for Montana Territory, for the year beginning January 1, 1866, shows Madison County had seventeen hundred sheep valued at \$4 per head and that Edgerton (Lewis and Clark) County had only sixty-nine sheep valued at \$3 per head. Four years later, in the fiscal year 1869, the Auditor presented the following record:

<i>County</i>	<i>Number Sheep and Goats</i>	<i>Valuation of Sheep</i>
Madison .....	12	\$ 150
Lewis and Clark .....	364	2,460
Deer Lodge .....	387	1,213
Beaverhead .....	62	248
Jefferson .....	1,346	5,058
Missoula .....	102	510

The Federal Census of 1870 reported a total of 4,212 head. Sheep numbers began to pick up rapidly in that year, since ewes were more frequently intermixed in the wether bands.

Governor Potts<sup>28</sup> stated that Montana's assessors showed 10,597 sheep in 1874, with a total valuation of \$33,699. Two years later he reported 20,790 head at

\$65,489. Evidently Senator Clark<sup>29</sup> did not place much faith in the assessor's figures quoted by the Governor, for he estimated Montana's sheep population the same year at forty thousand head. Warner<sup>30</sup> recorded the following information for 1878:

<i>County</i>	<i>Number of Sheep</i>	<i>Wool Exports</i>
Beaverhead .....	10,000	.....
Choteau .....	.....	50,000 lbs.
Deer Lodge .....	15,000	75,000 lbs.
Gallatin .....	7,000	.....
Jefferson .....	15,000	.....
Meagher .....	50,000	.....

The Federal Census of 1880 registered a quarter of a million head.

#### TWO PIONEERS

In the fall of 1871, the firm of Davenport, Ray, and Company purchased from William Harkness eighteen hundred Oregon sheep at five dollars per head. Senator W. A. Clark of Butte and R. X. Larabie of Deer Lodge also held interests. This flock had been trailed from Walla Walla to Deer Lodge. The firm was formed by Major Davenport and Thomas A. Ray of Helena, and the "Company" was A. W. Kingsbury,<sup>31</sup> a twenty-nine year old Missourian who

<sup>26</sup> Jean Bishop, *Statement of John F. Bishop*, MSS. Montana State Historical Library, Helena.

<sup>27</sup> Powers, *The American Merino*, 259.

<sup>28</sup> Governor B. F. Potts, *Report to Eighth Session of the Territorial Legislative Assembly of Montana*, January 5, 1874. Also *Third Biennial Message of the Governor of Montana to the Legislative Assembly*, Ninth Session, 1876.

<sup>29</sup> Robert George Raymer, *Montana, the Land and the People*, Vol. 1: 333.

<sup>30</sup> F. W. Warner, *Montana Territory History and Business Directory*, 99, 103, 113, 127, 131, 186.

<sup>31</sup> Wallace Kingsbury, Valier, Montana. Interview with author, January 18, 1940. Adkin W. (Ike) Kingsbury was born in Missouri in 1842 and left for Montana by ox team up the North Platte and over the Oregon Trail in May, 1864. He reached the Beaverhead in the late fall and wintered at Jefferson City, south of Helena. During the next few years he prospected and operated a livery stable in Helena. He became one of Montana's most influential sheep men.

was made general manager. This was merely a title, as Kingsbury performed all the herding, feeding, and caretaking of the sheep.

For three years the flocks ranged in the lower valley below Boulder Springs, the severity of the first winter nearly breaking up the enterprise. Family tradition indicates that for three weeks temperatures scraped fifty degrees below zero. Snow was deep, hay was twelve miles away, and Kingsbury spent all day hauling it in a hayrack with a "four-up" hitch. His only warmth was in the cabin at evening, and the flocks sustained heavy losses from shortage of feed and abnormal cold. At lambing time the weather was still bad, death losses large, and lambing percentages extremely low (partly because some wethers which Harkness had included among the stock ewes bore no young). By the fall of 1872 the tally still showed a shortage under the original number of eighteen hundred head, though the spring lambs were included.

In the summer of 1874 the owners shifted range to the Cascade country, to what was recently known as the "Taylor" ranch. It became the first permanent flock there. One thousand sheep were leased to Frank Cooper on a rental of half the wool and half the necessary operating capital. At the end of four years this flock had increased to 6,300 head, the original 1,000 head were returned or replaced, and an additional 2,650 head provided the owners' profits. At \$5.50 per head this represented a total of \$14,500.

In 1880 Kingsbury moved to Choteau County (east of the Highwood Mountains) and took up homestead, desert, stone, and timber claims which provided the foundation for the Big Sag Land and Livestock Company. The peak of operation was reached between 1908 and 1910 with about thirty thousand ewes

and wethers. Kingsbury was president and general manager of this company until his death in 1929—fifty-three years in the Montana sheep business. In the late nineties he operated a sheep partnership on Box Elder Creek east of Great Falls with his nephew, Robert Blankenbaker, later transferring it to Nashua, Montana. At Virgelle in Chouteau County he was in partnership with Senator V. P. Blankenbaker, and at Valier in Pondera County, with another nephew, F. D. Kingsbury. This latter point is the headquarters of his son, Wallace Kingsbury, who now carries on the flocks.

During this same period a German-born Montanan was building history for the state. Henry Sieben<sup>32</sup> came to America with his parents in 1852, and in April, 1864, Henry and Leonard Sieben started for Montana with a four-horse team and new wagon. They settled near Meadow Creek in Madison County and for ten years were engaged in freighting, stock driving, and livestock fattening. In 1872 a third brother, Jacob, joined them to start a partnership in the sheep business. At Red Bluff, California, Jacob bought a band of sheep in 1874 and trailed them to Prickly Pear Valley, where he landed a year later.

The partnership lasted for several years, then Leonard returned to Illinois and Henry took over the cattle interests. In 1906, however, Henry Sieben purchased the Henry Cannon ranch at Adele, near Cascade, and re-entered sheep production on a large scale. The business was organized as the Sieben Livestock

<sup>32</sup> A. T. Hibbard, Helena, Montana. Interview with author, January 18, 1940. Henry Sieben was the youngest of six children, born in 1847 in Abenheim, Hesse-Darmstadt, Germany. With his parents he settled in Chicago in 1852, but the next spring moved to the present site of Geneseo, Illinois, where part of the family still remains. For many years he was honorary president of the Montana Wool Growers' Association.

Company and for over a quarter of a century was one of the largest sheep concerns in the state. The holdings of the Sieben Livestock Company have been divided, and are operated under the direction of his sons-in-law, A. T. Hibbard and Fred Sheriff of Helena.

#### EASTERN MONTANA

By the mid-seventies settlement was commencing on the eastern plains of the state. In the spring of 1875 John Burgess bought a trail flock of eighteen hundred head in California and pointed them leisurely for Montana. By November they reached the Helena country and were wintered in the Prickly Pear Valley to the north. The following spring they grazed slowly eastward, avoiding the confusion after the Custer defeat on the Little Big Horn, and arrived on the Yellowstone at the mouth of Tongue River in October. Crossing to the east side of the Tongue, south of the modern Northern Pacific depot in Miles City, they wintered in the immediate vicinity.

By the spring of 1877 the band had been cut to seventeen hundred head, as a result of death losses and sales of mutton to frontier soldiers. The remainder were sold at two dollars per head to George M. Miles (nephew of General Nelson A. Miles) and Captain F. R. Baldwin. This operation started the sheep business in eastern Montana, and made Miles the pioneer wool grower of that region.<sup>33</sup> Unfortunately, after the sheep were purchased, scab broke out and heavy losses were incurred.

By the mid-eighties, sheep headquarters were scattered over eastern Montana. A contemporaneous map of Custer County shows about one ranch headquarters out of five to be devoted to sheep. South of Miles City the two largest owners were Myers Brothers and W. E. Harris—each running flocks of about seventy-five hundred head. George

Myers was an established breeder of American Merinos and sold registered bucks throughout the state. An enthusiastic writer<sup>34</sup> noted that Montana sheep in the mid-eighties were bringing about 4½ cents per pound in Chicago and that they weighed from 100 to 125 pounds each totaling \$4.50 to \$5.00 per head.

The first permanent sheep in the Rosebud country arrived in late September, 1884, being introduced by A. M. and A. D. Howard.<sup>35</sup> The set-up was called the "Twenty Ranch" after the horse brand, but it consisted of a 160-acre ranch and grazing on the public lands. Additional homesteads were "filed on" to cover the necessary water, and small log cabins were built near each water point. The herders lived in these, moving from one cabin to another each month. These cabins were separated five to twenty-five miles.

Sheepmen had considerable trouble with Indians and occasionally had to evacuate their ranches. Several herders were killed and much excitement developed, as such marauding was usually unpunished. One of the last Indian attacks occurred in late May, 1897, when a herder named Hoover, employed by John Barringer, was killed.

In 1897, one of the most prominent of the modern operators, Percy Williamson of Miles City, came into eastern Montana. At that time, the largest owner was Robert R. Selway, who ran twelve to fifteen thousand sheep at the head of Pumpkin Creek.<sup>36</sup> W. E. Harris also handled about the same number farther down the Creek, while George

<sup>33</sup> John Hatch, Miles City, Montana. Interview with George M. Miles (undated manuscript in library of A. Leggett, Butte, Montana, located in Leggett Hotel).

<sup>34</sup> M. A. Leeson, *History of Montana*, 440.

<sup>35</sup> Mrs. Freeman Philbrick, *Daily Star*, Miles City, Montana, May 24, 1934. Section IV, 9. See Biographical Appendix.

<sup>36</sup> Percy Williamson, Miles City, Montana. Interview with author, January 17, 1939.

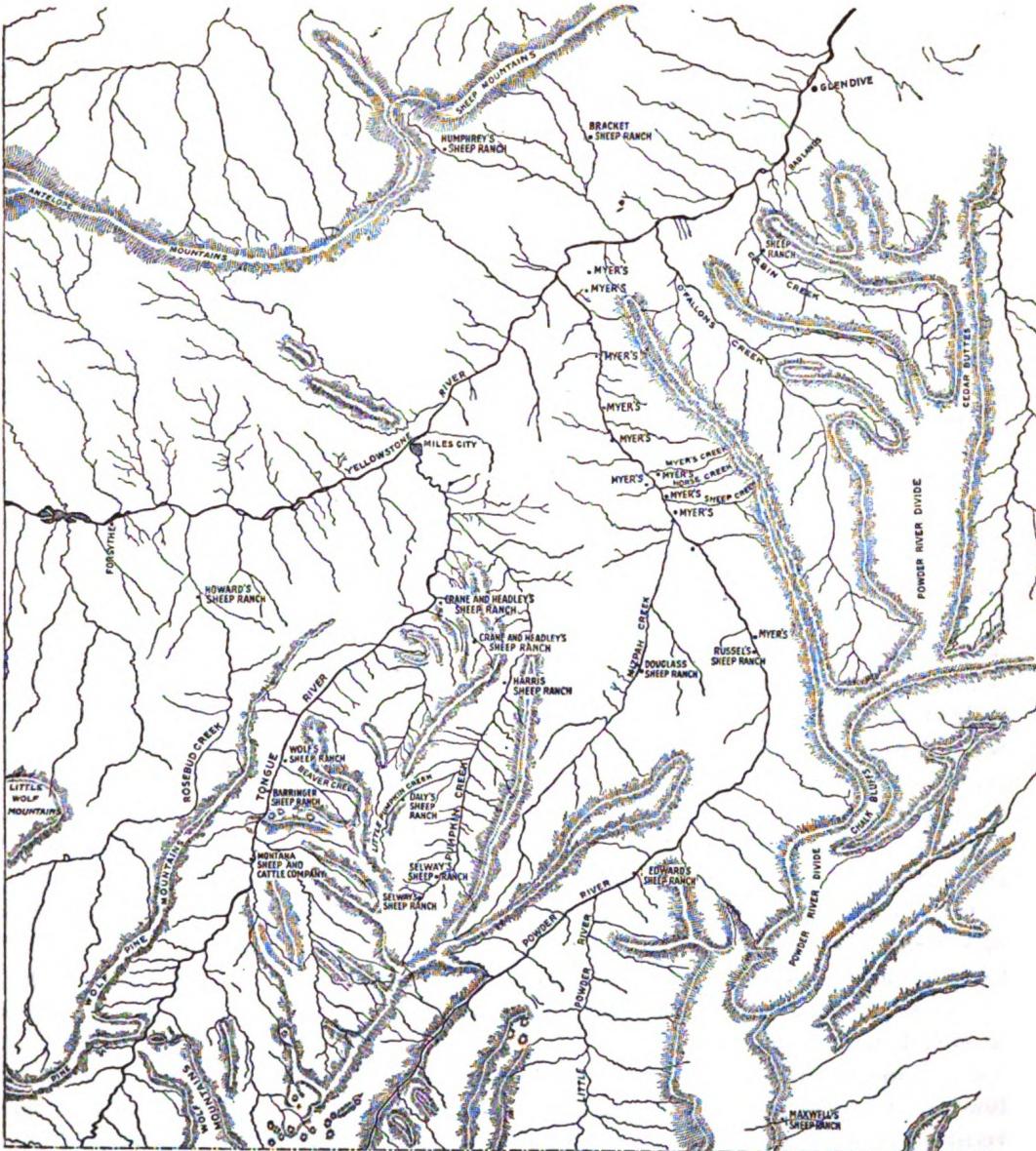


FIG. 68—Sheep Ranches in Southeastern Montana—1884.

Horkin had seven thousand head on Little Pumpkin Creek. On Fallon Creek, Kenneth McLean owned about ten thousand head and David Bickel five to six thousand. Charles Krug operated south of Glendive on Cedar and Cabin creeks, James Hunter was near Ekalaka on Big Beaver Creek and John Caldwell was at Baker.

On Powder River, Frank D. O'Neil grazed ten thousand head, and McLean and O'Neil fed large numbers each

winter at the New Brighton Yards near St. Paul. South of Forsyth, Thomas Hammond was running several bands, while north of Forsyth on Porcupine Creek, A. M. Cree was handling trail-wethers from Oregon. He fattened most of them near St. Paul, on the wheat screenings from the flour mills.<sup>37</sup>

<sup>37</sup> Dr. W. J. Butler, Helena, Montana. Interview with author, January 14, 1940.

North of the Yellowstone there were very few sheep in the nineties, although occasional flocks were found above Terry and Glendive. The two largest set-ups were owned by Tom Cotter, who was on Duck Creek just above its junction with the Redwater, and the Harvey brothers who were north of Glendive between Richey and Circle. Also above Glendive were Elmer Herrick and William Lindsay, while Charles Thurston was based on Bad Route Creek.

#### THE MUSSELSEHELL COUNTRY

In 1877 two flocks were permanently established on the Musselshell River. Smith Brothers had preceded Martin Grande<sup>38</sup> by a few weeks in locating in this country. The following spring Grande and John Smith went into Helena and bought a wagon and two yoke of oxen. Loading the wagon with provisions, they drove down to the Musselshell River where the Smith Brothers decided to locate near Martinsdale. Immediately Grande and Bill Smith started for Boise, Idaho, to buy a band of yearling ewes. They purchased only two thousand head, but each had a band of about fifteen hundred ewes when they dissolved partnership in 1879. Their drive into the Musselshell Valley followed just a week behind the Nez Perce Indians under Chief Joseph, who were making their spectacular break from Oregon toward Canada.

Although their first wool clip was big enough, they had great difficulty in selling it. The market was bad, and the buyers could not keep in touch with changes in Boston. When the partners went to Helena, the wool buyer had received instructions to buy no more at the prevailing price. Grande did not like the six-cent quotation, so the partners shipped their first clip via Missouri River boat from Fort Benton to Omaha and by train from Omaha to Boston. When it reached there the market had

improved to thirty cents per pound. This lucky venture paid off a large proportion of their loans.

When Grande dissolved partnership with the Smith brothers, he located on Comb Creek, where he lived until his death, April 22, 1930. His operations expanded until he owned twelve thousand ewes. During his early days he used Cotswold and black-faced rams as well as Merinos, but during the last quarter century he used Rambouilletts only. Before the dry land farmers came in, he ran his flocks all the way from Martinsdale (then a stage stop) to the Castle Mountains, but settlers arrived so fast that only his foresight in filing on water and strategic grazing lands enabled him to maintain even thirty-five hundred head in his later years.

#### THE YELLOWSTONE VALLEY

The Yellowstone Valley was occupied before the Musselshell, but cattle were brought in by the earliest settlers and sheep were later arrivals. Bands from California and Oregon arrived in 1877, coming over Bozeman and Bridger passes out of the Gallatin Valley. They reached the Yellowstone late in the fall and were wintered in the vicinity of Billings. Scattered bands continued to arrive in the Valley during the next two years, nearly all of them so infested with scab that they sustained heavy losses.<sup>39</sup>

In the spring of 1879, Charles McDonnell, Ed Veasey, James Duffey, and a man named Fitzpatrick left Red Bluff, California, with two bands of sheep, intending to locate in Nevada. En route they were advised to go to Montana where, after many hardships, they arrived in the Sweet Grass country in Wheatland County. The trip required six months

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<sup>38</sup> Nels Voldseth, Lennep, Montana. Letter to author, December 29, 1939. See Biographical Appendix, Martin Grande.

<sup>39</sup> I. D. O'Donnell, Billings, Montana. Letter to author, August 16, 1938.

and cold weather overtook them near Big Timber. They wintered their flocks about six miles upstream from the mouth of Big Timber Creek. The season was extremely severe and only seven hundred head out of Veasey and McDonnell's band of three thousand remained. Duffey and Fitzpatrick suffered even greater losses and Fitzpatrick lost courage, returning to Nevada. California sheep had, of course, never experienced so severe a climate.

During the summer of 1880, the three remaining men drove the remnants of their bands forty miles north, to the American Fork of the Musselshell. Here they were more successful. When Veasey and McDonnell sold their ranch to Wallace Huidekoper in the spring of 1907, they owned fifty thousand acres of land, forty thousand head of full-blooded Merinos, and two thousand head of Shorthorn cattle.

During the early days Veasey and McDonnell freighted their supplies from Fort Benton or Bozeman, a hundred-mile trip from either point. One of their early customs was to drift their bands eastward during the summer as far as the Dakota line, load their wethers and lambs on the westward-building Northern Pacific, and then drive their ewes home to winter.<sup>40</sup>

Several more bands of California sheep arrived in the fall of 1880, but the hard winter took a toll of fully 80 per cent of the trailed sheep, while in some localities 90 per cent were lost.<sup>41</sup> Consequently trailing from California fell off markedly during the next few years. John F. Work of Big Timber introduced a flock of two thousand head in the fall of 1880, his headquarters being the Four-Mile Ranch just west of town and north of the railroad. Although he sustained losses, he was not discouraged and in 1882 purchased ten thousand additional sheep in Oregon, trailing them east.<sup>42</sup> Work has been credited with being the

first alfalfa grower in Montana.

In 1882 and 1883 several other bands were driven from Oregon, as well.<sup>43</sup> These were better adapted to Montana conditions than the California sheep, being bigger framed and hardier.

By 1884 there were bands of sheep scattered over considerable territory in this section. The fall of 1886 found the country well stocked with sheep, and cattle had moved to the east and north. Many outfits had ten, twenty, and thirty thousand sheep. Prices were fairly high for the time, three or four dollars per head from an all-around band. This often included two or three year old wethers, lambs thrown in.<sup>44</sup>

The Lake Basin north of the Yellowstone also began to be stocked with sheep in the early eighties. In the spring of 1883 the Martins took into this region twenty-two hundred sheep they had trailed from Red Bluff the preceding season. Three hazards were faced. Each night they had to corral their sheep to shield them from the "buffalo," or big gray, wolves, and the severe weather forced them to buy five hundred tons of prairie hay from William Tucker of Columbus. The final hazard was the scab. An old ewe strayed from an Oregon trail band and joined their flocks, infecting their entire herd.

The whole outfit had to be treated with the sovereign remedy of the time—Ladd's Long Leaf Tobacco.<sup>45</sup> It was cooked up in tanks and the liquid poured directly on the scabs. Sheepmen of that day did not understand the infectious nature of the disease and believed that the tobacco solution was soothing and curative in nature. The lime and sulphur mixture was also known, but the sheepmen knew tobacco from personal use and liked it better.

<sup>40</sup> A. Ronald McDonnell, Big Timber, Montana. Letter to author, December 21, 1939.

<sup>41</sup> O'Donnell, Letter, August 16, 1938.

<sup>42</sup> Ray Holloway, Bozeman, Montana. Letter to author, December 24, 1939.

<sup>43</sup> O'Donnell, Letter, August 16, 1938.

<sup>44</sup> *Ibid.*

<sup>45</sup> Martin, Interview, January 17, 1939.

The year 1887 saw the establishment of two very historic flocks, those of Lee Simonsen and Charles M. Bair. Simonsen was backed by W. D. Ellis of Briggs and Ellis, oil brokers of New York. Ellis had hunted in Montana in the mid-eighties and became so infatuated with the country around Big Timber that he purchased several ranches there. These were well stocked with sheep and cattle, but his cattle losses were proportionately so much greater in the tragic winter of 1886-87 that he expanded his sheep for a comeback. One of his moves was to make a five-year agreement with Lee Simonsen, which read as follows:

This agreement between Lee Simonsen and W. D. Ellis: We are leasing Lee Simonsen two thousand ewes for five years—Ellis takes half the wool and Simonsen takes half. Ellis furnishes half the bucks and half the twine and wool sacks. He also furnishes half the money at 6 per cent, if needed. Ellis takes away the wether lambs every fall. At the end of five years Simonsen pays Ellis back two thousand ewes, including what is left of the original bunch.<sup>46</sup>

Both parties signed the agreement, and at the end of five years there were still 1,354 of the original ewes left—despite the fact that they had not been fed a spear of hay during the time. At the start these sheep headquartered in the Castle Mountains, but they finished the contract in the Stillwater country south of Columbus.

Simonsen's original equipment was a team, wagon, and harness (for which he paid forty dollars) and a borrowed tent. With such an investment he never had to borrow on the contract, as half the wool paid all the expenses. During the five year period his net selling prices on the wool ranged from 7½ cents to 12 cents a pound. In the final settlement Ellis took the wethers of the fifth year and turned all the ewes, regardless of age, over to Simonsen. Throughout the nineties, the large wheat sections began to develop around Big Timber and

extended as far north as White Sulphur Springs. Ellis trailed lambs to Big Timber and raised them (partly on wheat stubble) until they were three- and four-year-old wethers, shearing each year.

Charles M. Bair<sup>47</sup> started in Lake Basin in 1887 and then moved to Lavina on the Musselshell. In 1895 he sold the latter holding and went to the Crow Reservation, where he gradually increased his flocks until he was shearing two hundred thousand head. In addition to his breeding flocks he ran wethers on the Reservation. These were shipped by rail from Heppner, Oregon, and for a period of three years around 1910 he had an arrangement with Swift and Company to supply fifty thousand fat wethers annually.

In 1910 he shipped a trainload of wool to Boston (forty-seven carloads) which carried banners and streamers advertising Montana.<sup>48</sup> His flocks were reputed to total three hundred thousand head as early as 1906, and his headquarters were maintained in Hardin. He finally operated out of Martinsdale.

#### NORTHERN MONTANA

From a sheep standpoint, the year 1877 was even more important to the Helena region than to the Yellowstone or Musselshell. W. C. Gillette became associated with Governor B. F. Potts and Auditor D. H. Weston to enter the sheep business on the Dearborn River, some five miles upstream from the crossing of the Helena wagon road to Fort Benton. They started with a band of two thousand ewes and worked westward toward the mountains for their range.

<sup>46</sup> Lee Simonsen, Billings, Montana. Interview with author, January 17, 1939.

<sup>47</sup> Charles M. Bair, Interview with author, January 19, 1939. See Biographical Appendix.

<sup>48</sup> L. L. Perrin, St. Paul, Minnesota. Letter to E. L. Hoppel, General Livestock Agent, Northern Pacific Railway, St. Paul, Minnesota, February 3, 1939.



FIG. 69—Crossing band of sheep over Greybull River in Wyoming, with wagons and ramps. (Belden Photo.)

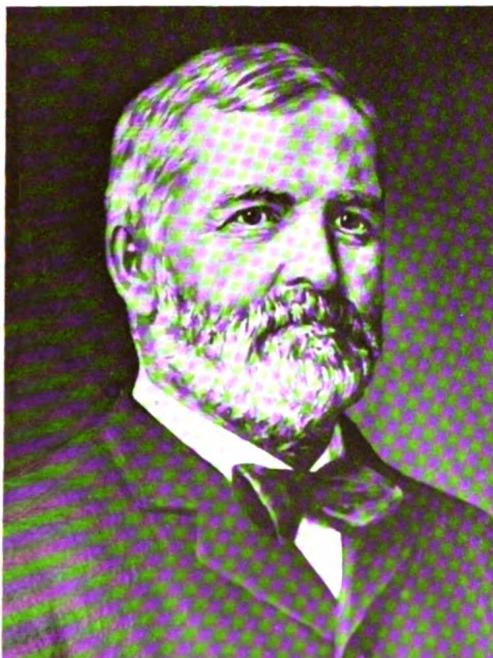


FIG. 70a—T. B. Hord, most extensive operator in Nebraska's finished lamb industry (pp. 350, 613). (From portrait by Robert W. Grafton.)



FIG. 70b—Frank Bond, organizer of New Mexico's largest lamb business (pp. 241, 607). (From portrait by Othmar Hoffler.)

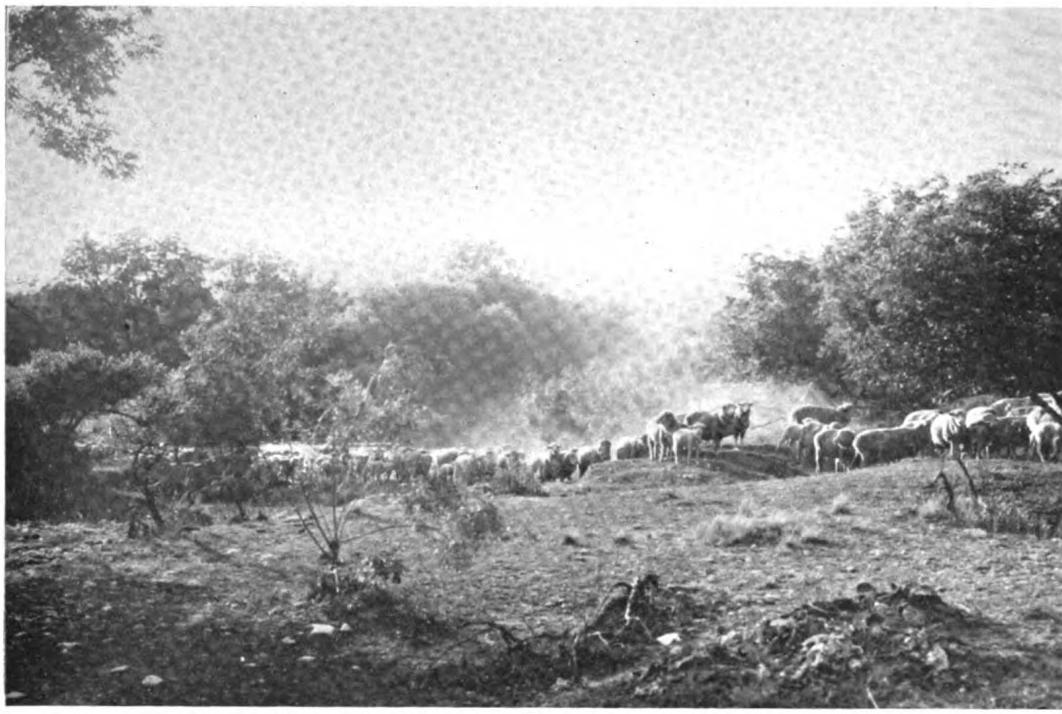


FIG. 71—Texas sheep range—one of Louis Schreiner's bands near Kerrville (p. 385). (McArthur Photo Service.)



FIG. 72—Typical wool warehouse in Texas (pp. 392-94). (Photo from *The Sheep and Goat Raiser*.)

Late that summer Gillette<sup>49</sup> had an experience with two Nez Perce Indians, returning westward after Chief Joseph's surrender. Gillette was riding a new saddle and had a fine watch with the conspicuous gold chain that was fashionable in those days. One Indian dismounted, and while the other attracted his attention, the Indian on the ground seized Gillette's right foot and pitched him from the saddle. While off balance, the mounted brave seized his heavy watch chain, but the chain and button-hole both held as Gillette shoved the dismounted Indian away. The latter backed up a few steps and raised his rifle, but the mounted Indian apparently warned him not to shoot. Nevertheless they forced Gillette to hand over his watch, new saddle, and pony. He later realized that luck was with him in spite of his loss, for the same Indians the next day murdered two white men—Wareham and Cottle—twenty-five miles farther up the river.

In 1883 Gillette bought out his political partners, the flock totaling more than five thousand head. Many of the sheep were out on shares with other operators. Six years later, George K. Reeder<sup>50</sup> went to work for Gillette and in 1899 bought into the flock. It then numbered nine thousand head, and the business was incorporated as the W. C. Gillette Company. The shorn fleeces averaged 3.96 pounds that year, but through utilizing good rams the weight was increased to 6.25 pounds by 1903 and to approximately 10 pounds by 1917. Gillette sold out to Reeder in 1910, and the company was liquidated in 1937. However, two new corporations were formed to carry on the business.

During the eighties and early nineties a large percentage of Montana sheep were owned by persons who did not manage their flocks themselves.<sup>51</sup> Nearly all of the leading men of capital in

Helena owned interests in bands of stock, either sheep or cattle. One of the social events of 1886 was the marriage of Thomas Cruse to Margaret Carter in The Cathedral of the Sacred Heart, but the unusual fact was that the groom got wedding publicity as the owner of the Montana Sheep Company with a flock of twenty-five thousand head.

Men of this type usually took as a business associate some man of experience and integrity who lacked capital, and placed him in charge of the flock. For his services he usually received half of the increase. The sheep were herded summer and winter in bands of not more than two thousand head, corralled every night, and guarded against the depredations of dogs and wild animals. Even as late as 1885 the most serious losses of sheep came from wolves, which were particularly abundant north of the Yellowstone.

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<sup>49</sup> W. C. Gillette was born in 1832 in Westerville, New York, and graduated from Oberlin College. In 1862 he came to Montana, and with James King formed the partnership of King and Gillette, handling merchandise and doing freighting at Bannock, Virginia City, and Cottonwood (Deer Lodge). In addition they conducted mining operations in Confederate Gulch. In 1870 Gillette was a member of the Washburn party that explored Yellowstone Park. It was rumored that the partnership of Potts, Weston, and Gillette broke up through an oversight of Gillette's in neglecting a needle to sew up the wool sacks, which required Governor Potts to ride the sixty miles to Helena and back again, an effort apparently unbecoming to the governor's dignity.

<sup>50</sup> George Reeder was honorary president of the Montana Wool Growers' Association several years. When he bought into the Gillette flock he realized it contained everything from "Karakuls to Katydids," but he built it up materially. Throughout the thirty-eight years he operated it the company sold its wool as low as ten cents and as high as sixty-four cents a pound. In a parallel way, ewes sold as low as 44½ cents per head (1903) and as high as fourteen dollars per head for yearlings (1919). Reeder once stated that the sheep business is a long-time proposition and that one cannot get into it and pull out of it at any specified time with a profit. "Ordinarily bull dogs and sheep do not agree, but a shepherd has to be a bull dog, no matter what the sheep think, and stick, stick, stick." Reeder died in February, 1943.

<sup>51</sup> Leeson, *History of Montana*, 440.

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The Judith Basin was opened for livestock in 1878, but the first sheep came in 1881. David Hilger<sup>52</sup> made a pack trip that August from Helena into the Basin, when it was first mentioned as a promising sheep and cattle country. His route followed White's Gulch, White Sulphur Springs, Reed's Ford (now Lewistown), Martinsdale, and Judith Gap. The Judith Cattle Company (T. C. Power and J. H. McKnight of Helena) was already established on Warm Springs Creek. Two brothers, Henry and John Brooks, employed by them, had been old friends of Hilger's family in Minnesota. John Brooks and Hilger immediately decided to go into the sheep business on Salt Creek, got some teams and machinery, and put up hay.

Hilger then returned to Helena and completed the purchase from his father of a band of sheep in which he already held a small interest. Using about a month, he returned by the same route he had traversed on his pack trip, and landed in the Basin on November 20, 1881. The two partners erected a few buildings for shelter, but lived in a buffalo hide wickiup. They hauled in a stock of beans, bacon, rice, flour, coffee, and dried fruits, and used a keg of sirup for sweetening. Their meat supplies came largely from buffalo and smaller game. That winter Hilger killed about three hundred buffalo and hired Gros Ventre squaws who were camping nearby in a village of about a dozen lodges to tan the hides.

Each year more livestock came into the basin, and by 1885 there were many large flocks in the region. In the nineties, T. C. Power had about one hundred thousand head of sheep with the Judith Cattle Company or out on shares.<sup>53</sup>

Great Falls became a center of sheep husbandry almost as soon as Helena. The pioneer operator was Paris Gibson,

who with his son Theodore located on Otter Creek near Belt, in 1879, with a band of sheep. In the fall of 1880 they visited the Great Falls of the Missouri which had inspired Lewis and Clark, and were so impressed by the country that they began grazing sheep in that region in the spring of 1882. By 1885, Paris Gibson and Son were listed as having the leading flock of registered Merinos in Montana.<sup>54</sup>

One of Great Falls' most important commercial operators was a Norwegian, H. H. Nelson. He started with sheep in 1884 and at the peak handled more than fifty thousand ewes. His wife was a sister of Frank Putnam, who handled the western business of the Hecht-Liebmann Wool Company of Boston, and this contact helped contribute to his success. About 1905-06 he cut his operations as a result of some difficult land ventures, and his grazing leases were turned over to J. B. Long. However, his son, Richard Nelson, has carried on his part of the business to the present.

In 1888 J. B. Long<sup>55</sup> located his first flocks in the Stanford country west of Lewistown, but soon moved onto the Fort Peck Indian Reservation. By the early nineties he was shearing 160,000 head annually. His custom was to buy wethers in Oregon, trail them to Montana, and then ship east. Normally he started his flocks eastward from the ranch in the spring, sheared at Malta and Glasgow, trailed to the summer range, shipped the fat sheep in the fall

<sup>52</sup> David Hilger was identified with the Montana sheep industry from the earliest days. In 1868 as a boy of ten years he helped lamb out, in the Prickly Pear Valley, the ewes which the Jesuit Fathers had brought to St. Peter's Mission the previous year and then transferred to the "Priest" ranch. In his later years he served as State Historian of Montana.

<sup>53</sup> Thomas Cooper, Interview with author, January 24, 1940.

<sup>54</sup> Powers, *The American Merino*, 259.

<sup>55</sup> See Biographical Appendix, J. B. Long.

from Culbertson on the Great Northern Railroad, and then drove the breeding end of his flock back to Great Falls.

He gave up trailing from Oregon in 1895, and substituted shipment by railroad, but continued to drive across Montana until 1910, although this proved very difficult on account of the fences. Roy Clary became associated with Long in 1897, and the Long-Clary Sheep Company was established in 1906. At its peak the breeding flock numbered 150,000 head.

#### NORTHEASTERN MONTANA

About 1902 the pioneer permanent flocks began to be established in northeastern Montana. For the first decade and a half of this century, the section was dominated by transient bands of wethers trailing eastward from Oregon or the western part of the state. Shearing took place there and the wool was sent on to market by rail, as were the wethers, after grazing Dakota stubble fields. Since 1910, most of the sheep have been turned onto the Fort Peck Reservation. The leases on the forest reserves were held privately and were available for only a short time during the year, and all available public land had been taken up.

Among the early settlers in this region were Gibson and Carpenter, large operators, who were taking on sheep in 1884-85. They summered between the Fort Peck Reservation and the Canadian line, and wintered in the Missouri River breaks. Previous to 1886-87 they ran cattle with their sheep. But their cattle losses were so great that winter that they sold the remnants, crossed the Missouri River, and ran only sheep thereafter. About 1885 Henry Carpenter gambled on his four-horse outfit and supply money, and lost. For twenty-five years he never went to town again, but when that time arrived, each partner was worth a quarter of a million dollars.

Also about this time, Charles and Frank Cooper came from the Dupuyer country and from Cascade, respectively, and settled north of Glasgow. They ran about ten thousand head of ewes and wethers. Several prominent families of Basque descent entered this section. John Etchepare arrived about 1900, and the Oronos brothers and John Etchart<sup>56</sup> about 1910. A number of French Basques also settled around Plentywood and Shelby.<sup>57</sup>

South of Malta in 1903 came another well-known operator, Carl Hensen. He acquired considerable fame trailing sheep from Skagway to Dawson, in the Yukon territory, at the time of the gold rush up there. In the same year Gordon Jamieson<sup>58</sup> came to Glasgow. He was first identified with sheep by trailing bands to Nebraska for Hershey and Boettcher. From 1892 to 1897 he worked with J. B. Long, still handling trail sheep eastward along the old Oregon Trail. During this period he took sheep twice to England for Long, but about 1900 started breeding flocks for himself. Jamieson has exercised an outstanding influence among northeastern Montana sheepmen.

<sup>56</sup> John Etchart, Tampico, Montana. Letter to author, December 24, 1939. John Etchart was born in France, August 2, 1882, and died in Glasgow, Montana, April 17, 1943. He first went to California in 1900, but ten years later settled in Montana, where he built up one of the most successful sheep and livestock enterprises in the state. Etchart was active in the Montana Wool Growers' Association three decades, serving as a director for many years.

<sup>57</sup> Paul Etchepare, Secretary, Montana Wool Growers' Association, Helena, Montana. Letter to author, April 11, 1939.

<sup>58</sup> Gordon Jamieson has been one of the leading sheepmen of northeastern Montana. He is not only a grower and a feeder, but handled several exports of fat sheep to England during the nineties. For many years he was identified with the Farmers-Stockgrowers Bank in Glasgow and has been president for the last two decades. In 1939 he was made an honorary president of the Montana Wool Growers' Association, after serving for many years as a director.

## THE TRAILING INDUSTRY

Trailing was important, both into and out of Montana. The relatively late date at which Montana received railroad service made trailing absolutely essential. The present lack of north and south rail lines preserves the necessity of some driving even today. The flocks from California, Oregon, Idaho, and Washington came principally over Monida Pass, but the Mullan Road made it convenient to strike into the Deer Lodge Valley, the Sun River Valley, or the Missouri River Valley with equal facility. In 1880, Gordon<sup>59</sup> reports that 186,000 head were driven into Montana, and a still larger number the next year.

Throughout the late eighties and most of the nineties, the big ranches in the western and west central part of the territory continued to drive their sheep overland. Thomas Cruse, of the Montana Sheep Company, at Helena, operated the N Bar Ranch on Flat Willow Creek near Lewistown, and followed this practice, as did John T. Murphy of the 79 Ranch in Lake Basin (headquarters in Helena). These ranchers would shear in Miles City and Glendive, then trail on to Dickinson, where they would load for St. Paul and Chicago. During the nineties both Joe Simms of Lavina and Bert Shorey, north of Columbus, would trail bands of big Oregon wethers, three thousand in a drive, shear in eastern Montana, then ship the wool from Northern Pacific shipping points. The country in eastern Montana and the western Dakotas was finally fenced so that trailing stopped about 1910, but from 1893 until that date it was a regular annual affair.

During the eighties and nineties, big drives were made to the Dakota and western Minnesota wheat fields in the Red River Valley. Some droves covered the entire distance without any rail haul, and a few in the early days continued

within a hundred miles of St. Paul. In general the rail service on the Northern Pacific, and later on the Great Northern, proved so efficient that the bands were trailed only to the most convenient loading points.

Malta, Glasgow, and Culbertson were popular on the Great Northern. Terry, Forsyth, Glendive, Miles City, and Wibaux were most frequently used on the Northern Pacific. The most prominent Montana figures in the trailing business were J. B. Long, William Rae of Livingston, A. M. Cree of Forsyth and St. Paul, Bert Shorey of Lake Basin, Joseph Simms of Lavina, and L. D. Burtt of White Sulphur Springs.

## MONTANA WOOL MARKETS

The problem of marketing wool from Montana was always intense. In 1876 John Healy of San Francisco established a wool buying and grading station in Helena as a representative of a California wool house.<sup>60</sup> Before the Northern Pacific was constructed wool was freighted from the western part of the state over Monida Pass, and was loaded from Corinne, Utah, on the Union Pacific Railroad north of the Great Salt Lake, or from Granger on the same road in western Wyoming. The country tributary to the Missouri River hauled its wool to Fort Benton, at the head of navigation. Up to the mid-eighties this route was popular, as the wool could go directly to St. Louis, which was then one of the great wool centers. However, it was possible to trans-ship it conveniently to the railroads at Bismarck, North Dakota, Omaha, Nebraska, and St. Joseph, and Independence, Missouri.

Fort Benton had a more attractive market than its competitors, Dillon on

<sup>59</sup> Gordon, "Report on Cattle, Sheep, and Swine," *Tenth United States Census*, III:1025.

<sup>60</sup> *The Independent*, Helena, Montana, February 19, 1878.

the trail to Salt Lake, and Missoula in the northwestern part of the state, by a price margin of four to five cents a pound. In the early eighties Fort Benton was paying nineteen to twenty-three cents for wool when the more western markets paid only fifteen to nineteen cents.<sup>61</sup>

The westward extension of the Northern Pacific gave a number of Montana towns the chance to become big wool shipping points and markets for a short time. Wibaux, Glendive, Terry, Miles City, Forsyth, and Billings succeeded one another, although Billings remained an important market for years. Then Columbus and Big Timber developed. From 1883 to 1893 "bull teams" hauled wool great distances into these points, not being completely displaced by horses or mules before the end of the century. A record was established in 1892 at Big Timber, when one great "bull team" of seventy-two oxen hauled ninety-six thousand pounds of wool in a string of wagons hitched one behind the other.<sup>62</sup>

For several years Billings shipped fifteen to sixteen million pounds annually to eastern markets—principally Boston, Philadelphia, and Chicago. The record year totaled above seventeen million. During June, 1899, the Billings news columns<sup>63</sup> were full of stories of big clips, mostly from Wyoming. David Dickie hauled fifty thousand pounds from Meeteetse, while Taylor and Hogg, Newton Brothers, and J. F. Howell from the same country ranged from twenty to thirty-five thousand pounds each. Between 1890 and 1910 all of the eastern Montana loading points shipped large wool tonnages as the trail drivers developed the practice of shearing before going on summer grazing.

#### GROWTH OF MONTANA'S INDUSTRY

Montana's sheep census provides some startling figures. In 1870 the territory

showed 2,024 sheep; in 1880, 184,277; in 1890 ten times as many, or 1,859,016; and in 1900 three and a half times again, or six million head. Thereafter the numbers dropped to something over five million in 1910; just over two million in 1920; above four million in 1930; and over three million in 1940. While one does not question the authenticity of the figures, nor their seeming response to general economic conditions, the vast in-and-out movement of wethers, trail sheep, and out-of-state sheep into forest grazing areas have made it difficult to measure Montana's potential breeding production.

The Bureau of Agricultural Economics has attempted to divorce these extraneous movements and estimate the stock sheep situation. For corresponding periods they show:

1870.....	11,000	1910.....	5,385,000
1880.....	385,000	1920.....	2,420,000
1890.....	2,228,000	1930.....	3,940,000
1900.....	4,504,000	1940.....	3,462,000

Apparently those making the estimates felt the early figures were too small and the later extremes too high. The largest population of stock sheep seems to have occurred in 1903, when 5,736,000 were estimated. Most authorities believed that the census drop in 1920 was greater than actual, and recovery in 1930 was above that which the census showed. This situation is difficult to check, but Bureau estimates take into account known marketings, wool yields, assessors' reports, rail movements, and a variety of other data that tend to offset the bias of good or bad seasons when they fall in census years.

The thousands of sheep that came to Montana from California carried one

<sup>61</sup> Leeson, *History of Montana*, 440.

<sup>62</sup> Perrin, Letter to Hoppel, February 3, 1939.

<sup>63</sup> *The Billings (Montana) Gazette*. Issues for June, 1899, especially June 30.

to three top-crosses of Merino blood, but the price break of the mid-nineties stimulated a swing to mutton breeds. Cottswolds, Leicesters, and Lincolns all became popular. Barnes<sup>64</sup> estimates that by 1900, 30 per cent of the range flocks were of mutton type, while by 1910, 60 per cent of the rams and 30 per cent of the ewes were definitely of mutton breeding. Between 1910 and 1915 the Romney and Corriedale began to acquire considerable popularity, and in the last few years the Columbia has developed strength. The mutton-built Rambouillet ram is still the most popular, however. Peculiar to Montana's mutton movement has been the slower popularity of the black-faced breeds.

#### MODERN ASPECTS

Montana has become primarily a wool-producing and feeder-lamb-producing state. While fat lambs are turned off in the irrigated districts centering around Billings and Sidney, the lambing season is too late and the grazing season too short to make fat lambs off mothers' milk regularly profitable. Furthermore, the cost of equipment and the difficulty of early fattening due to feed conditions have restricted the spread of the shed-lambing practice.

Montana has had some excellent breeders of range rams, especially Paris Gibson and Poindexter and Orr in the early days, as well as Dr. H. C. Gardiner of Anaconda, and Williams and Pauly and Guy Stambaugh of Deer Lodge more recently. Under the leadership of Peter Pauly, Williams and Pauly for many years had the largest flock of registered Rambouilletts in the United States.

#### WYOMING

Wyoming, like Idaho, provided a highway for sheep travel long before it attracted flocks to its ranges. A century ago small bands were crossing it en route to Utah and Oregon, and with the advent

of the fifties the great drives to California commenced. By 1858, however, flock movement across the Territory was declining. The Civil War was nearly over before it regained important volume.

A small amount of sheep production was practiced in Wyoming's southwest corner. Jim Bridger introduced a few New Mexican sheep and goats to his fort in 1846-47, and these proved adaptable both to the country and to the methods necessary for the successful handling of range flocks. A decade later, a member of Colonel Albert Sidney Johnston's expedition, Judge William A. Carter of Virginia,<sup>65</sup> settled at Fort Bridger as post trader and sutler. Soon he engaged in the sheep business, and his flock, then ten years old, appeared on Uinta County's 1869 tax rolls. Three years later—in September of 1872—John "Sheep" Smith, with his Indian wife and family, settled sixty miles to the north on the old Oregon Trail, in modern Lincoln County, on Fontenelle Creek, with a band of five hundred head.

The impulse to move westward with sheep was strong by the end of the Civil War. The Federal Commissioner of Agriculture estimated in 1862<sup>66</sup> that the cost of keeping sheep was only half as great in the West as in the East. Land values were low, flock investments slight, expenses small, and grass and water free. Numbers of veterans from both the Union and Confederate armies

<sup>64</sup> Will C. Barnes, "Corriedales and Other Types of Sheep for the Western Range," *The Breeder's Gazette*, 68:1245.

<sup>65</sup> Judge William A. Carter was the first true sheep producer in Wyoming. An unusually cultivated and literary man, Carter not only brought his entire personal library across the plains with him but also one of the large, square, old-fashioned grand pianos. As a member of the Territorial Legislature and a judge of the Federal Courts, he played an intimate part in the early development of Uinta County and the state. His home was preserved many years by the State Historical Society but was unfortunately destroyed by fire.

<sup>66</sup> Report of the Commissioner of Agriculture, 1862:303-12.

turned their attention to prairie and mountain husbandry. Cattlemen came in faster at first. Minto<sup>67</sup> estimates that sheepmen were more than ten years behind them, both in getting established and in obtaining adequate financing.

The flock owners had to select areas not already occupied. Considerable land was available, however, since there was so much short grass and "browse" in parts of the Wyoming range that the feed was inadequate for cattle. Also, only one-third as much capital was required to start with sheep. These handicaps to cattle production had much influence in provoking Wyoming's cattle-sheep wars about the end of the last century.

The southeastern section of the state was well adapted to sheep. Buffalo and bunch grass, and a native "bluegrass," were highly nutritious, and the rolling plains were well watered with creeks and springs. In the late sixties a few flocks were driven into this region, and the Census of 1870 reported 6,409 sheep in the Territory, with about six thousand in Albany County.<sup>68</sup> These flocks were probably not definitely established—most being enroute to other areas.

In 1869 Captain Maynard took an eastern-bred flock of Merinos into the Lone Tree Creek district just over the Colorado line,<sup>69</sup> but it ranged in part on Wyoming soil. The next spring John H. and Thomas F. Durbin bought five hundred sheep being held for slaughter by Amos Peacock. Peacock was a stock-grower who owned two butcher shops in Cheyenne, each being managed by a Durbin.<sup>70</sup> It was difficult and unprofitable to ship mutton from Omaha, so Peacock regularly fed a flock southwest of town. In 1871, Thomas Durbin brought nine hundred Mexican ewes to Cheyenne, intending to convert them to mutton.<sup>71</sup> Instead it looked more profitable to breed them. Hence Durbin Brothers appeared as sheep operators

on the tax rolls of 1871, and their sheep headquarters were four miles from Cheyenne where the Warren Livestock Company now maintains a sheep camp.

The first sheep from the Wyoming range to travel the Union Pacific to the Missouri River were shipped by the Durbins in 1872.<sup>72</sup> After the death of their younger brother George in the blizzard of 1876, the Durbins shifted to cattle. The severity of this blizzard is attested by the fact that Judge Kingman of Cheyenne lost all but five hundred out of three thousand head of Vermont sheep he had introduced in 1870.

About this same time another member of the legal profession, Judge W. L. Kuykendall, located a band of "Mexican" ewes on Crow Creek, near a large willow grove below the modern headquarters of the Wyoming Hereford Ranch. This flock flourished for eight years, then was wiped out by the drouth of 1880–81.<sup>73</sup>

M. E. Post and James A. Moore were the outstanding operators around Cheyenne in the early seventies, although Moore went east to the Platte River toward the end of the decade. Post was the most extensive flock owner in the Territory. In the spring of 1875, the *Cheyenne Leader*<sup>74</sup> reported that "M. E. Post, our sheep king, has added five

<sup>67</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 771.

<sup>68</sup> Ninth U. S. Census, 1870, Vol. III: "Wealth and Industry," 196–97 and 284–85.

<sup>69</sup> Alvin F. Steinle and Holbrook Working, "History of Agriculture in Colorado," *Annual Publication*, Colorado State Agricultural College, 146.

<sup>70</sup> Thomas F. Durbin, Cheyenne, Wyoming. Letter to H. E. Crain, Cheyenne, April 12, 1915, published in "Letters from Old Friends and Members," by the Wyoming Stock Growers' Association, Cheyenne.

<sup>71</sup> Thomas Cooper, "Early Sheep History in Wyoming," *The Tribune-Herald*, January 23, 1940, Section II, 1.

<sup>72</sup> Earle G. Reed, Department of Traffic, Union Pacific Railway Company, Omaha, Nebraska. Letter to author, June 9, 1938.

<sup>73</sup> Judge W. L. Kuykendall, *Frontier Days*, 159.

<sup>74</sup> *The Cheyenne (Wyoming) Leader*, March 13, 1875, 4, col. 1.

thousand sheep to his flock on Pole Creek." Post's flock was formed by the purchase of New Mexican ewes, on which Merino rams were crossed. The fleeces of the original ewes were coarse and averaged less than three pounds apiece. The first cross progeny bettered three pounds and the second cross raised the average to four or five pounds.<sup>75</sup> In each of these crosses the quality was greatly improved.

In September, 1871, the *Cheyenne Leader*<sup>76</sup> quoted the *Omaha Herald* of August 31 to the effect that eleven hundred head of Missouri sheep had passed through Omaha the day before, en route to Wyoming. The *Leader* added that within a hundred miles of Cheyenne there were sixty to eighty thousand head. That same summer Elias W. Whitcomb took into the Pole Creek country a flock of New-Mexican-bred sheep, while in 1872 the Laramie County tax rolls listed F. Ketchum and J. H. Slaughter.

By 1873 these same rolls had added Hay and Thomas, W. L. Kuykendall, Escoffrey and Curry, William H. Lee, and Fred Landon as sheep owners of the preceding season, while in 1874 the following names appeared—A. B. Converse, Converse and Warren, Post and Corbett, Durbin Brothers, C. Hanson, and E. W. Whitcomb.

The *Cheyenne Leader* in 1875<sup>77</sup> published the leading sheep outfits that headquartered near Cheyenne, giving the approximate number in each flock:

No. Head	
Riner and Durbin, Cheyenne .....	1,100
Durbin Brothers, Horse Creek .....	2,500
Searight and Co., Chugwater Creek.....	2,500
Culver and Boughton, Muddy Creek.....	3,000
M. E. Post, Pole Creek .....	8,000
Sturgis and Lane, Pole Creek .....	3,500
Dyer and Schwartz, Pole Creek .....	3,000
E. Duffy, Crow Creek .....	3,000
E. W. Whitcomb, Crow Creek .....	1,200
W. L. Kuykendall, Crow Creek .....	1,000
L. R. Bresnahan, Crow Creek .....	800
Hay and Thomas, Lone Tree Creek.....	3,000
Converse and Warren, Lone Tree Creek..	2,500
Hurlburt Brothers, Lone Tree Creek.....	1,000

The spring of 1876 brought a long cold storm that caused extensive mortality. Along the Colorado line heavy hail fell, while around Cheyenne a cold rain, interspersed with snow,<sup>78</sup> chilled the shorn sheep severely. On Pole Creek, eighteen miles west of the city, the flock of Sturgis and Lane drifted before the storm and scattered widely. Twenty-five hundred head were lost for several days, but the majority were finally recovered near the city. Dyer and Schwartz lost a hundred head, while M. E. Post saved only twenty-four hundred out of a band of thirty-five hundred. One hundred of his sheep were recovered twelve miles away<sup>79</sup> with a band belonging to E. W. Whitcomb.<sup>80</sup> Wool activity was great the following spring, many of those hit hardest shearing the dead sheep or pulling and selling the pelts. The *Cheyenne Leader* on July 3 commented on the large shipments of wool to Boston and Philadelphia by M. E. Post.

#### THE LARAMIE PLAINS

The Laramie Plains were considered the best range in the entire Wyoming Territory. The elevation varied from seven to eight thousand feet, and the undulating plains ran back into the hills and breaks, providing shelter as well as suitable grazing grounds during stormy wintry weather.

The first sheep to locate in Albany

<sup>75</sup> *The Cheyenne Leader*, September 14, 1881.

<sup>76</sup> *Ibid.*, September 12, 1871, p. 1, col. 2.

<sup>77</sup> *Ibid.*, September 21, 1875, p. 2, col. 1.

<sup>78</sup> *Ibid.*, May 25, 1876.

<sup>79</sup> *Ibid.*, May 27, 1876.

<sup>80</sup> Elias W. Whitcomb was one of the most versatile livestock operators in Wyoming. In 1867 he established a small band of sheep on Box Elder Creek in Colorado, to the south of Cheyenne, and in the early seventies he operated on Pole Creek and Crow Creek. During the eighties he moved his flocks farther north into Converse and Crook counties. Throughout his career he had as large investments in cattle as in sheep, and was the oldest cattleman participating actively in the "Johnson County War."

County<sup>81</sup> were three thousand "Mexicans" trailed there in 1870 by George Creighton, who entered partnership with Charles H. Hutton of Laramie. They were run through the first winter in an open corral, and finished the season in fine condition. The corral was made of fence poles, the lower being two feet above the ground so that the sheep could run out to graze at any time. The success of the method aroused the Union Pacific surgeon, Dr. Latham, to such a degree that he issued a pamphlet for the railroad describing the country and giving the facts concerning the wintering of these sheep.

Among those interested was Robert H. Homer (for over forty years owner of the well-known Flag Ranch southwest of Laramie City), who introduced his first sheep in the summer of 1871. According to the tax roll, they were handled under the firm name of Homer, Sargent, and Evans. About twenty-five hundred head were driven in. The severe winter of 1871-72 wiped out the band,<sup>82</sup> but Sargent and Homer re-entered the business two years later.

Many flocks were imported that season of 1871. Moulton and Weaver brought thirty-eight hundred head, while Colonel G. W. Dana and N. K. Boswell located thirty-five hundred head on Sportsman's Lake. Creighton and Hutton put out several bands—one on Willow Creek, one at Dirty Woman Stage Station, one on Sand Creek, and one or two on the Little Laramie. These sheep came from Ohio, Indiana, and Missouri, and were not acclimated. When the dry summer of 1871 was followed by the heavy snows and blizzards of the next February, they lost their flocks and credits. Nearly all were currently "broke"—Homer giving his last six head to Creighton and Hutton.

Practically all of those who sustained great losses "came back," however. Sheep numbers increased rapidly in this

area during the seventies and eighties. The *Cheyenne Leader* of September 10, 1872, reported that the Laramie Plains were practically abandoned by cattlemen and given over to sheep raising, all done "quietly, peaceably, and good-naturedly." Very little land was owned or leased by stockmen, and the rights to ranges on the government domain were recognized by common consent.

The Albany County tax rolls for 1872 recorded as flock owners: Thomas Alsop, Willard and Company, Edward Farrell, Charles H. Hutton, E. D. Lane and Company, I. C. Winslow, Moulton and Weaver, and Willard Clark. By 1873 there had been added Lawrence Dwyer, J. W. Kingman, H. B. Rumsey, Rumsey and Coates, J. M. Sherod, and Sargent and Homer.<sup>83</sup> The latter firm was advertising Merino rams for sale<sup>84</sup> in 1881, while the next year, at a preliminary organization meeting of the Wyoming Wool Grower's Association, Sargent and Company was listed as owning ten thousand head.<sup>85</sup>

During the eighties, the fencing problem on the public range became quite important. Originating in "drift" fences to prevent sheep and cattle from drifting from their accustomed range before storms, such fencing also kept the herds and flocks of tramp owners and interlopers off ranges where prior rights existed. Growing competition and intrusion on established ranges gradually led to rather complete fencing of the public domain, and small operators and newcomers were often excluded from hay-

<sup>81</sup> F. S. King, *The Laramie (Wyoming) Boom-erang*, March 12, 1904.

<sup>82</sup> W. E. Chaplin, U. S. Forest Service. Address before the Wyoming Wool Growers' Association, Cheyenne, January 15, 1920.

<sup>83</sup> Cooper, "History of the Wyoming Wool Industry," *The Tribune-Herald*, January 23, 1940, Section II, 1.

<sup>84</sup> *The Laramie (Wyoming) Sentinel*, October 8, 1881, 3.

<sup>85</sup> *Ibid.*, January 7, 1882, 3; January 14, 1882, 3.

lands, water, and more desirable grazing. By 1890 the question was critical, and W. D. Currier wrote:

Here on the Laramie Plains the sheep business is about wiped out. Six years ago there were forty sheep ranches, now there are six. Cause, no range! Parties bought the railroad land in large blocks, and then fenced in both railroad and government land, and allow no one to go inside the fence. There are blocks of fifty and a hundred thousand acres so fenced here. I used to run twenty thousand sheep here—now run six or eight thousand, and shall have to move out next year, as they are now fencing the last of my ranges. . . . There is not one-fourth the cattle or sheep on the Laramie Plains there were six years ago.<sup>88</sup>

The last statement is an obvious exaggeration but fencing gradually forced the extensive type of wool growing out of the region, and sheep spread westward across the southern part of the state. Crowding was probably the principal factor in this movement, but the increased service of the Union Pacific Railroad contributed equally. Finally the only sheep outfits able to remain in business in southeastern Wyoming held blocks of patented land, with adequate water supply, hay meadows, feed storage, and facilities for shelter.

#### WARREN LIVESTOCK COMPANY

Typical of such an establishment was the ranch of the Warren Livestock Company. Founded by Francis E. Warren<sup>87</sup> as an outgrowth of the livestock operations of Converse and Warren, the sheep business commenced in 1871. Not alone did the firm function as sheep and cattle growers, but it conducted extensive trading and leasing. On August 1, 1873, it contracted to deliver to Hay and Thomas at Cheyenne "one thousand, more or less, graded Merino sheep, ewes, and a sufficient number of rams," which Hay and Thomas were to receive on their ranch and run on a share basis.<sup>88</sup>

In April, 1875, M. E. Post entered into a contract with Warren to deliver

fifteen hundred head of yearling "Mexican" ewes, "all white, sound, and healthy, and equal in quality and size to the flock of ewes sold to Messrs. Todd and Trimble of Fort Collins, Colorado," the previous year. The price was \$2.25 per head, delivered at W. B. Miner's ranch near Fort Collins between July 25 and September 1, 1875. An endorsement on the contract, dated October 15, 1875, indicated its satisfactory execution.<sup>89</sup> A share agreement was completed that same September under which Converse and Warren agreed to deliver to Hamma and Murphy 1,345 "thoroughbred and graded" Merino ewes and thirty "thoroughbred" Merino rams, Hamma and Murphy agreeing to care for the flock.

In 1878, Warren purchased the Converse interests,<sup>90</sup> and effected a sheep partnership with W. B. Miner in Colorado, the firm being known as Miner and Warren. This partnership continued for five years, issuing share contracts to

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<sup>88</sup> Carman, Heath, and Minto, *Special Report on Sheep*, quotes W. D. Currier, 781.

<sup>87</sup> See Biographical Appendix, Francis E. Warren.

<sup>88</sup> The Warren Livestock Company has in its files a receipt, dated the following September, acknowledging the delivery of twenty-five head of "thoroughbred Merino" rams and 1,165 "graded" Merino ewes. Apparently these sheep came from the East, as southern sheep brought to Wyoming in the seventies were usually designated as "Mexican."

<sup>89</sup> Fred E. Warren, Cheyenne. Letter to author, December 1, 1938.

<sup>90</sup> Converse apparently handled some sheep separately between 1875 and 1878, as well as under the partnership. When he finally sold to Miner and Warren, he issued a bill of sale for twenty-two hundred sheep of different ages and sexes at \$1.60 per head, and twenty-eight rams at \$5 each, with the comment that "this is the flock kept by Martin Galloway." That Converse and Warren also operated as partners during this time is indicated by a receipt from Hay and Thomas to Converse and Warren for seventy-one Merino bucks, one and two years old, which were marked "C & W" and "W & C" on metal tags in the left ear. They also issued a receipt to Converse and Warren for 156 Merino bucks "which we agree to keep for one year from this date at the rate of \$1.10 per head on the following conditions," etc. These manuscripts are in the files of the Warren Livestock Company, Cheyenne.

numerous other operators.<sup>91</sup> Difficulties developed with scab, and most of the sheep had to be dipped regularly. The wool clip was usually sold to Dewey, Gould, and Company in Boston and brought good prices, although letters in the files of the Warren Livestock Company indicate that the wool shrank 70 to 73 per cent, with occasional lots as high as 80 per cent.<sup>92</sup>

The Warren Livestock Company was incorporated in 1883, its certificate of incorporation containing the following objectives:

The said company is formed for the following objects, namely: The buying, selling, raising, grazing, and breeding of neat cattle, horses, mules, sheep, goats, and other livestock, and the acquiring, holding, purchasing, selling, trading in, and otherwise disposing of real estate, ranches, ranges, water rights and privileges, in the Territories of Wyoming, Dakota, Montana, Utah, and Idaho, and in the states of Nebraska and Colorado, and in other states and territories of the United States, as may be necessary or conducive to the interests of the said company, and as the successful prosecution of the business of the said company may require.

By 1889 the Company's holdings totaled 284,000 acres, divided as follows: land in fee simple, 96,000 acres; leased university and school lands, 23,000 acres; range rights, 150,000 acres; and "government" land, 15,000 acres. While the ranch lay on both sides of the Union Pacific, the position to the south was described<sup>93</sup> as twenty-five miles long and seven miles wide, all fenced, and partially irrigated by thirty miles of main ditch and sixty-five miles of laterals. Eighteen hundred tons of hay were cut yearly, to feed the flocks, which numbered around seventy thousand head. The Company maintained thirty-eight ranch houses and sheep stations over this area, which were interconnected by telephone (an astounding innovation in those days).

All of the meadows were securely fenced and all of the water on the land the Company controlled was owned by

it.<sup>94</sup> The *Cheyenne Leader* of March 21, 1886, reported that Bariani and Company had completed a bored well on the ranch with "eighty feet of living water." A windmill and large storage tank were also erected which would furnish water for several thousand sheep, as well as for irrigation.

The flocks grew rapidly. One year after incorporation, the Warren Livestock Company had 25,000 sheep and 3,000 cattle and horses. By 1889, there were 90,000 sheep, with 2,500 cattle, 2,000 horses, and 2,500 Angora goats. The lamb crop for 1890 was 25,000 head, and the Angora kids 700. The next year the manager reported<sup>95</sup> that the Company was running 110,000 sheep, and 2,500 Angora goats again.

Each year the Company turned off as feeders or muttons, the four-year-old wethers, the five-year-old ewes, and such "lambs as are unsuited by conditions to run through the winter." These classes, together with the culls of all ages, were disposed of as mutton. Winter feeding stations were maintained in Nebraska, and in 1890 the four-year-old wethers, as an experiment, were fattened, shorn, and slaughtered as five-year-olds. The depression of the mid-nineties in the wool industry prevented the continuance of the practice, despite its initial success.

An experiment in baling wool for shipment to market was also conducted in 1889. Three sacks were compressed into one bale which was held by wire.

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<sup>91</sup> One of these operators was Charles Warren of Fort Collins, a cousin of Senator Warren, and father of "Nate" Warren, so long prominent in the lamb feeding and banking industry at that point.

<sup>92</sup> Warren, Letter, December 1, 1938.

<sup>93</sup> *Cheyenne (Wyoming) Daily Sun*, "Statehood Edition," March 28, 1887, 267.

<sup>94</sup> *Annual Report*, U. S. Department of Agriculture, 1887:267.

<sup>95</sup> Carman, Heath, and Minto, *Special Report on Sheep*, quotes W. W. Gleason, Manager, Warren Livestock Company, Cheyenne, 782-83.

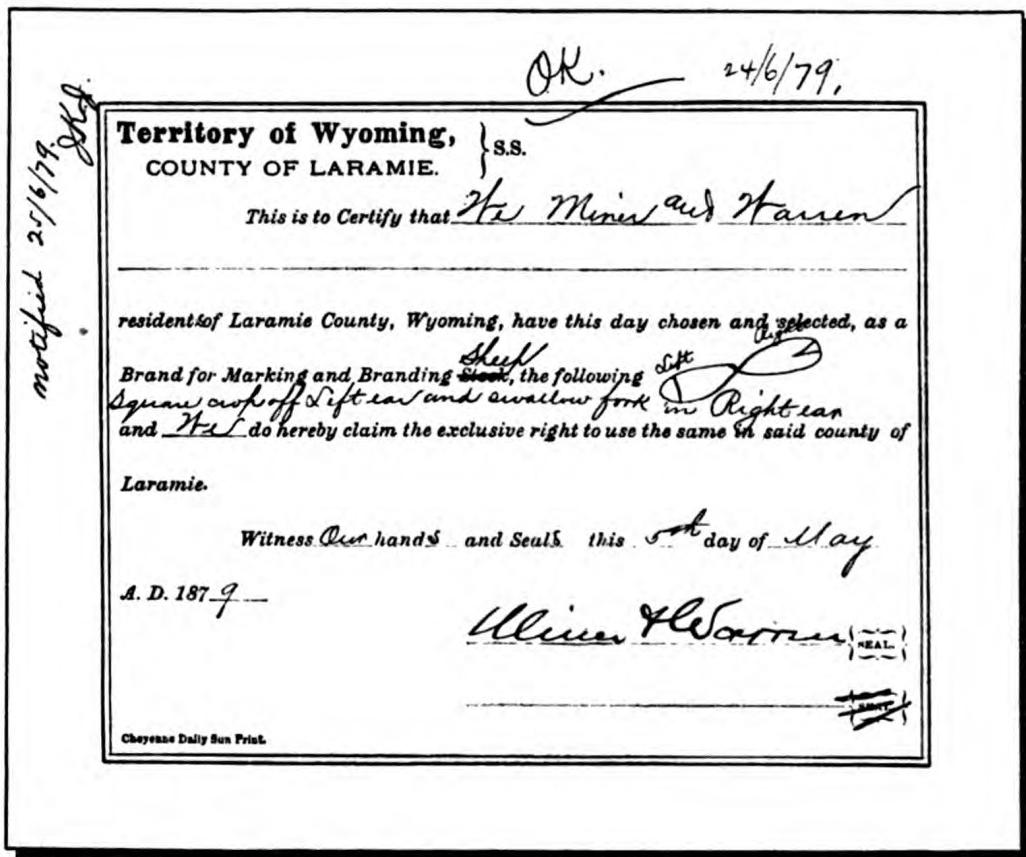


FIG. 73a—Sheep Stock Brand (*front*) belonging to Miner and Warren, Cheyenne, Wyoming, 1879.

The clip that year totaled 302,745 pounds. Freight was charged on a car-load basis, with no weight limit and the saving, as compared to sacking, was \$1,422.81. The rate from Cheyenne to Boston on baled wool turned out to be \$1.80 per hundredweight, while on sacked wool it was \$2.47. In the early days of the Company it cost about seventy cents per head annually to pay all expenses.<sup>96</sup>

Statistical measures of improvement in commercial sheep flocks are not readily obtained, but the records of the Company show the improvement in weight of fleece. The foundation Mexican ewes of the seventies sheared a little over 2 pounds. In both 1888 and 1889 the clip averaged 6.1 pounds. In 1940 the yield was 11.16 pounds per head. Around 1890, when ranges were deteriorating, weather bad, and ewe ages increasing,

the annual shearing average per head fell from 6.1 pounds in 1889 to 5.3 pounds in 1890, and 4.4 pounds in 1891. No change was made in quality of breeding stock, but by culling for age, and with the recovery of the range, fleece weights were restored. Shrinkage were improving, too. In 1894, Dewey, Gould, and Company reported that 130,403 pounds of Warren Livestock Company's wool sold in one lot, yielded 52,731 pounds of clean wool, a shrinkage of 59.6 per cent.

#### FLOCKS FLANK THE RAILROAD

Sheepmen began to realize, as the seventies closed, that the marketing facilities of the Union Pacific multiplied the possibilities of production all across

<sup>96</sup> Warren, Address before the Colorado Stock Growers' Association, Montrose, Colorado, June 23, 1939.

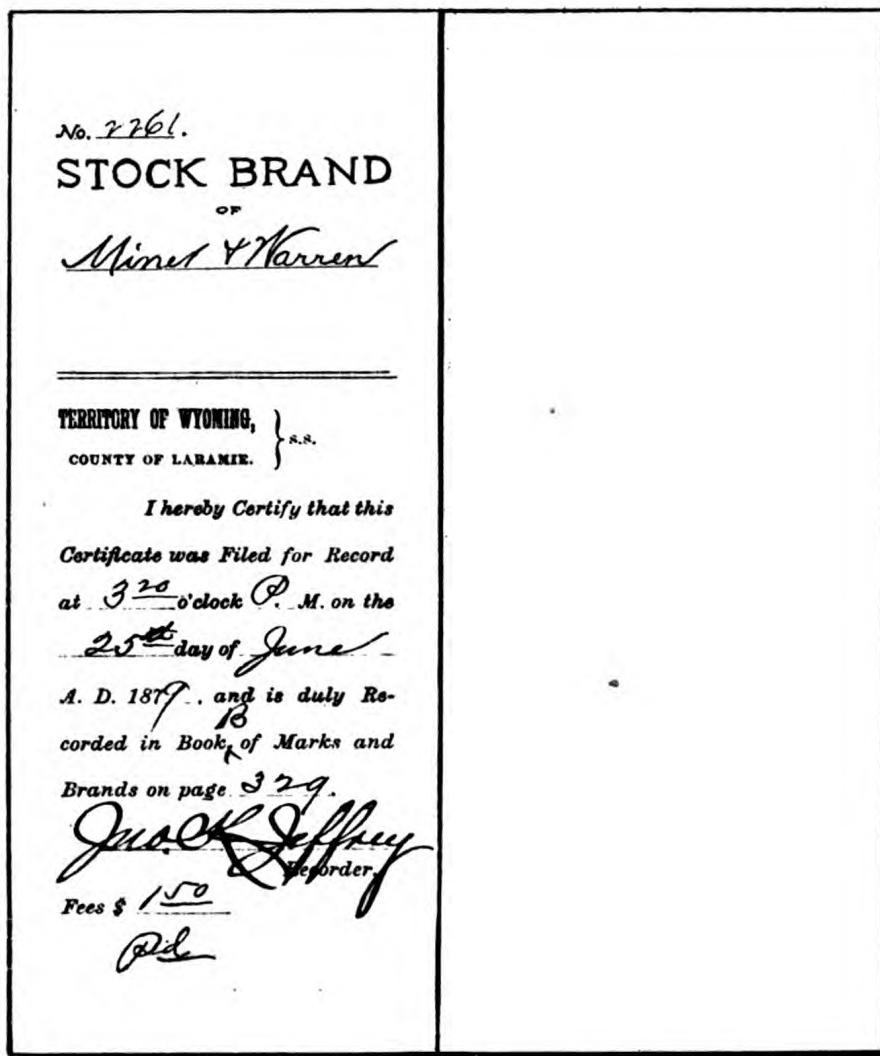


FIG. 73b—Sheep Stock brand (*back*) belonging to Miner and Warren, Cheyenne, Wyoming, 1879.

southern Wyoming. Credit for the first permanent flock in Sweetwater County is claimed by John McCady,<sup>97</sup> who drove stock sheep from Colorado into this region in 1878. Later he made additional drives from Texas and California.

By 1880 almost all of the sheep in the Territory were flanking the Union Pacific rails. The census showed a total of 450,225 sheep—354,082 in the southeastern section, 75,504 in the western section, and 10,579 in the northeastern section. Approximately forty thousand head were driven or shipped out of Wyoming that year, and ninety-six thousand driven in.

By 1884 the western counties of Uinta, Fremont, and Sweetwater were predominantly occupied by sheep.<sup>98</sup> Three-quarters of the Wyoming flocks were based on "Mexican" ewes, crossed with Merino rams, and to a lesser extent with Cotswolds.<sup>99</sup>

Throughout the eighties, headquarters for the sheep ranches clung closely

<sup>97</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 782.

<sup>98</sup> E. L. Osgood, "The Day of the Cattleman," 189-230.

<sup>99</sup> Harold E. Briggs, "The Early Development of Sheep Ranching in the Northwest," *Agricultural History*, 2, No. 3 (July, 1937):170.

to the towns served by the railroad. By the middle of the decade twenty-nine outfits were operating in Laramie County and fifty-one in Albany County, the latter's holdings approximating 106,000 sheep. Among the Albany County flocks was one that was destined to become, for a period, the ranking Rambouillet breeding and show establishment of the United States, that of F. S. King Brothers and Company<sup>100</sup> of Laramie.

After 1886 the cattle industry faltered in Wyoming, while sheep increased rather rapidly. The terrible winter of that year left scars from which the cattle grower never recovered. Nine hundred thousand cattle in 1886 declined to only 300,000 head a decade later, while sheep rose from 875,000 in 1886 to three and a third million at the turn of the century.<sup>101</sup>

#### PROFITS IN SHEEP

The principal reason for the increase in sheep production in Wyoming was the return from the operation. On the Laramie Plains, H. B. Rumsey reported a net profit of 35 per cent for three years, while M. E. Post earned 60 per cent in one year.<sup>102</sup> Willard Clark, eighteen miles from Laramie City, had an income of \$8,338 on an investment of \$12,100 in 1880. He assured General Brisbin<sup>103</sup> that he could clear his investment in three years. Brisbin<sup>104</sup> indicated that an average ranch having five thousand sheep would typically have as investment:

640 acres of land, approximately .....	\$ 800
Buildings and fences .....	1,500
Vehicles, harness, tools, etc.....	750
Horses and dogs .....	750
Sundries .....	200
	—
	\$4,000

Adding the cost of the sheep at \$2 to \$3 per head, the total investment became

\$14,000 to \$19,000, with no charge included for the public range.

#### THE SOUTHERN COUNTIES

West of the earlier sheep ranges lay Carbon, Sweetwater, and Uinta counties. Few of the operators in Carbon County (the easternmost) were resident there as the eighties opened, but maintained their headquarters in Albany County. Robert Taylor, Wyoming's largest operator, came into the Rawlins country in 1880. Two years later there were sixteen outfits listed, including Miller and Hurt, Frank A. Hadsell, George Ferris, William Savage, Walter Savage, Richard Savage, and L. Stockwell.

During the next few years many other well-known names appeared, such as Mahoney and Startzel, Thomas A. and John B. Cosgriff, Fred Kindt, Smiley and Foster, Peter Christiansen, Robert Jack, Geddes and Hemphill, and Johnson Brothers. Most of these sheepmen were in business before their names appeared on the tax rolls, because their operations started in the fall, were not recorded by the assessor until the next year, and they did not pay taxes until the second year thereafter. Furthermore, when flocks were run on shares, only the name of the principal owner was used.

The earliest of the large Carbon County operators was Ike C. Miller.<sup>105</sup> His first flock was owned in 1875, but in

<sup>100</sup> See Biographical Appendix, Frank S. King.

<sup>101</sup> *Wyoming Agricultural Statistics*, Wyoming State Department of Agriculture, 1923, 29.

<sup>102</sup> General James S. Brisbin, *The Beef Bonanza*, 113, 122.

<sup>103</sup> Brisbin, *The Beef Bonanza*, 112.

<sup>104</sup> *Ibid.*, 114.

<sup>105</sup> I. C. Miller was born in Denmark in 1844 and reached Rawlins in 1870. In 1873 he started in the cattle business and two years later added sheep. His interests did not become large until he entered partnership with Joel J. Hurt in 1881. Two important Rawlins sheep interests were united in later years when Miller's daughter married Kleber Hadsell, son of Frank A. Hadsell.

1881 he entered partnership with Joel J. Hurt,<sup>106</sup> and the new firm was soon in business on an extensive scale. By 1888 they had twenty-five thousand head and held more than forty thousand head at the peak. Another prominent operator of pioneer days was Frank A. Hadsell,<sup>107</sup> who entered the business in 1882 and owned about twenty-five thousand head at his maximum point. The Savage brothers came into the Rawlins country about 1882 or 1883, with five to six thousand sheep. Originally there were three brothers, but only Walter and Richard remained throughout the years. By 1886 they had several thousand sheep out on shares, with a number of partners.

Fred Kindt established headquarters in Rawlins in 1885, and was assessed on twenty-five hundred head in 1886. His winter range lay east of Pass Creek, above its junction with the North Platte, while his summer grazing was in the Snowy Mountains of the Medicine Bow Range. The range which he originally used, covering eight townships, is still called by his name, though it is now owned by Isadore Bolten and in the intervening period was owned by Robert and James Hopkins and their banker partners, J. C. Davis of Rawlins and his son, Roblin Davis, of Denver. Bolten maintains Kindt's original brand, and has some descendants of his flock.

Two other pioneer operators who started in the late eighties and who carried through until recently were Abe Stratton and John J. Jost.

In Sweetwater County a different type of sheep management developed, based on adaptation to the Red Desert, with its alkaline water, in the basin of the Great Divide. About 1877 Archie Blair<sup>108</sup> started in the sheep business, and finally owned four or five bands. Another prominent flock of the early eighties was that of John G. and Griffith W.

Edwards.<sup>109</sup> The Edwards brothers were very large operators in Wyoming and Colorado until about 1900.

Additional flockowners in early Sweetwater County included John Blair, James Michie, Harry Joyce, Murray and Darling, and Joseph Young. Young trailed from twenty-five hundred to three thousand sheep from northern New Mexico into the Rock Springs region in 1883. Another prominent Rock Springs operator who started in the late eighties was William W. Daley, whose flock persists to the present under the ownership of W. W. Daley, Jr.

Up to 1893, the Red Desert and Sweetwater County provided a popular terminus for eastward drives from California, where sheep could be wintered and reconditioned before going to the mountain ranges the following spring.

In Uinta County the sheep industry centered around Evanston. One of the earliest references occurred when the region was part of Green River County of Utah, and Joseph Bunsby, who operated ferries on Ham's Fork, was given the right by law to transfer sheep and hogs over the stream at ten cents per head.<sup>110</sup>

<sup>106</sup> See Biographical Appendix, Joel J. Hurt.

<sup>107</sup> Frank Hadsell was not only prominent in the sheep industry but for many years was in public life, long being warden of the State Penitentiary at Rawlins. His son, Kleber Hadsell, was president of the Wyoming Wool Growers' Association for several years, and was one of the chief promoters of the so-called "Truth-in-Fabric" movement during the twenties of this century, that led to the Wool-Labeling Act, requiring the labeling of clothing fabrics as to proportion of virgin wool and other fibers.

<sup>108</sup> Archie Blair's flock has come down to the present day under the ownership of John W. Hay. Blair was primarily in the coal business but acquired several bands of sheep. In the early nineties John W. Hay came to Rock Springs with the Union Pacific and was married to Blair's daughter. Hay has also been involved in the banking business and politics, having been candidate both for governor and senator. The flock is still a leading one in Sweetwater County.

<sup>109</sup> See Biographical Appendix, Edwards Brothers.

<sup>110</sup> Elizabeth A. Stone, *Uinta County — Its Place in History*, 66.

Following Judge Carter, the pioneer sheep owner was Elias Goodman, who with his wife and two sons engaged in sheep ranching in 1873. Their ranches "were models in their way and were brought to a high state of efficiency."<sup>111</sup>

Part of the slow development in this section was due to prior occupation by cattle whose owners, as early as 1870, set a "deadline" against sheep, across which flock owners were forbidden to pass.<sup>112</sup> The cattlemen enforced the restrictions by threats and gunplay. John Bourne, H. S. Potter, and John Smith were listed as flockowners on the tax rolls of 1878, but by 1880 T. E. Harker (with his various partners) was the only operator. In 1879 just eighteen names of sheepmen appeared on the tax rolls.<sup>113</sup>

As the trail herds began to disappear, the country in Lincoln County, from Kemmerer to Cokeville and Star Valley, began to settle with sheep. P. J. Quealy commenced sheep operations around Kemmerer about 1900, transferring his interests from Old Carbon. J. D. Noblitt, originally with the Union Pacific, started at Cokeville. Noblitt was the principal organizer of the Lincoln County wool pool of the early twenties, which was one of the forerunners of the present-day cooperative wool marketing movement.

An interesting development in this region was the establishment of a "woolen factory" at Afton in the Star Valley. The *News-Register* of Evanston on May 8, 1897, reported that Edward Buckley, an Englishman with four sons, previously of Utah and Idaho, was setting up a factory at the mouth of Swift Creek Canyon. "Yarns, blankets, flannel suitings, quilt batting, and everything of a woolen character will be manufactured."

#### THE COSGRIFF BROTHERS

One of the largest firms handling sheep in Wyoming was Cosgriff Brothers,<sup>114</sup>

who at the peak of their career ran 125,000 head in addition to their mercantile and banking interests. They first operated around Fort Steele in 1882, and moved to Rawlins in 1885. About this time they began purchasing "checkerboard" lands from the Union Pacific Railroad between Hanna and Rawlins, eventually owning most of the lands and gaining control of the intervening public lands thereby. Summer range was found in southern Carbon County and in Routt and Moffatt counties in northern Colorado.<sup>115</sup>

Their flocks ranged all the way from Rawlins to Copperton, to Encampment, Fort Steele, and Rock River, and later out toward Rock Springs and Opal. At each of these points they maintained supply houses for their employes and bands. These gradually were developed into a series of twelve to fifteen chain stores, serving other ranchers and operators, and became a pioneer mercantile system in Wyoming that finally extended as far as Salt Lake City.

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<sup>111</sup> Stone, *Uinta County—Its Place in History*, 182.

<sup>112</sup> *Ibid.*, 196.

<sup>113</sup> Cooper, "Early Sheep History in Wyoming," I.

<sup>114</sup> Thomas and John Cosgriff came to Colorado from Burlington, Vermont, in the mid-seventies. For several years they operated a freight line into Denver and invested their spare earnings in sheep. These were sent up to the vicinity of Fort Steele in Wyoming in 1882, under the care of their trusted Mexican foreman, Adriano Apadaca. By 1885 they had accumulated two bands of ewes and moved their headquarters to Rawlins. In 1890 their younger brother, James E. Cosgriff, came out from Burlington to join in the partnership. However, James Cosgriff held a smaller interest than the others in the Cosgriff Sheep Company and was financially interested in some outfits outside of the Company. T. A. Cosgriff died in 1915 and John Cosgriff in 1917, both failing to attain their sixtieth year. James E. Cosgriff died in Salt Lake City in 1938.

<sup>115</sup> George Bible, President, First National Bank, Rawlins, Wyoming. Letter to author, August 14, 1940.



PANEL 74—(Above) Arthur G. Anderson, West Texas sheep pioneer (pp. 387, 605). (Shigeta-Wright.)

(Above Right) George Wilkins Kendall, "Father of Texas Sheep Industry" (p. 280). (Courtesy of Georgina Kendall Fellowes.)

(Below Right) Charles Schreiner, wool grower and marketer, financier, philanthropist (pp. 385, 619).

(Below) Caspar Real, pioneer wool grower of the "Brush Country."

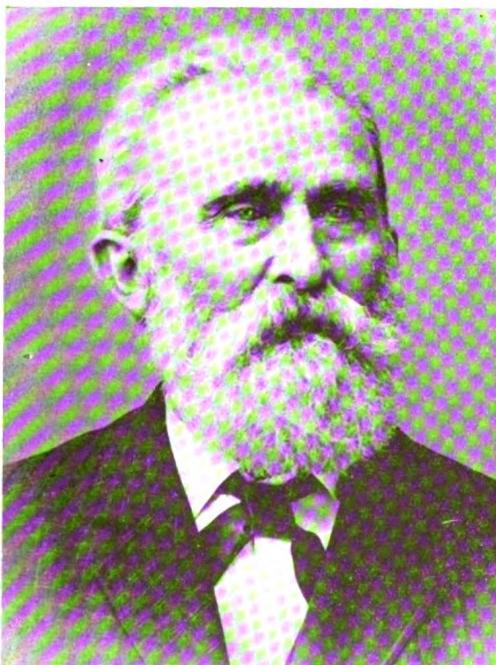




FIG. 75 (*Above*)—Shearing scene in Texas (pp. 391-92). (Photo from *The Sheep and Goat Raiser*.)

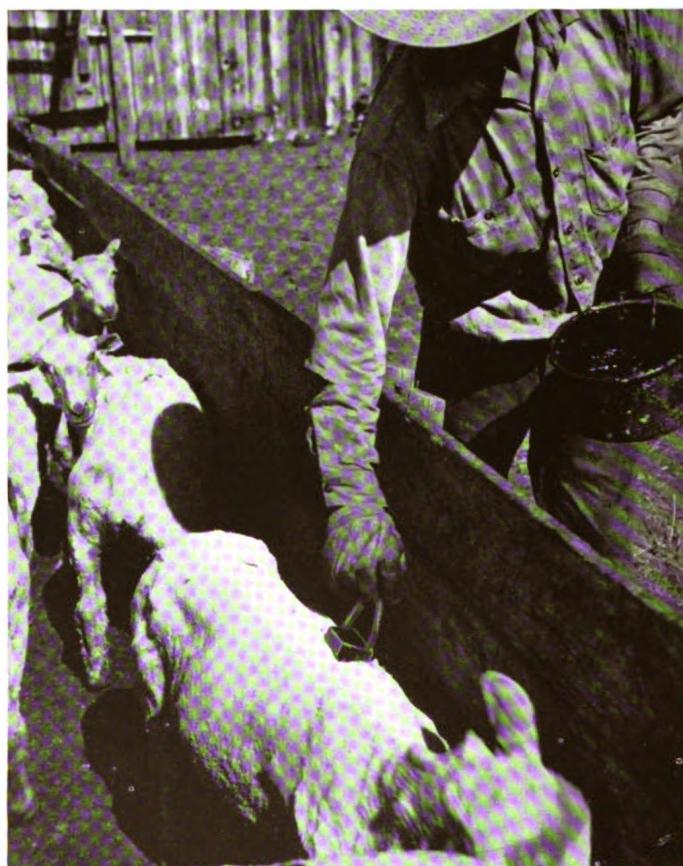


FIG. 76 (*Right*)—Paint-branding shorn ewes at Tschirgi ranch, Wyola, Montana. (Ralph Hobbs, Jr.)

They were also pioneer bankers and handlers of livestock loans. The first bank was purchased in Rawlins. It became the forerunner of twenty-seven banks scattered over the livestock country as far west as Salt Lake City, Utah, and Caldwell, Idaho; as far north as St. Anthony and Rexburg, Idaho, and Sheridan, Wyoming; as far east as Denver, Colorado; and as far south as Monte Vista, Colorado. In the southern Wyoming sheep districts, they operated from Rawlins, Laramie, and Encampment; and financed many large and small sheep outfits all over the Territory.

From their other banks they performed similar services for the sheepmen of Colorado, Utah, and Idaho. Among larger outfits that they financed may be mentioned L. E. Vivian of Wyoming and Colorado, and Richard Winder of Utah and Colorado (father of a recent president of the National Wool Growers' Association, G. Norman Winder of Craig, Colorado). John Cosgriff and Richard Winder were partners in the sheep enterprise until 1905. The Cosgriffs were highly conservative in the margin required for loans, hence most of their customers succeeded.

The greatest single shipment of wool ever sent out of Wyoming was a trainload of eight hundred thousand pounds loaded in 1905 from Fort Steele for Boston by the Cosgriff Brothers. But five years later the partnership was broken. The portion of their holdings east and south of Rawlins finally went to L. E. Vivian<sup>116</sup> in 1915, including ten thousand acres purchased by the Midwest Refining Company where the town of Parco is now located. The famous Cow Creek outfit had never been owned by the Cosgriff Sheep Company but had been one of James E. Cosgriff's many partnerships. The part of this ranch west of Saratoga was sold to John Hart,

while the eastern part was retained by Cosgriff for many years.

#### CENTRAL WYOMING

The first sheep in central Wyoming, around the upper headwaters of the Big Horn River, arrived in 1870. William Tweed,<sup>117</sup> an Englishman who had come to the South Pass area in search of gold, took two hundred head to Red Canyon Creek (a tributary of the Little Popo-Agie, south of Lander). They wintered well, and he reported that the minimum necessary for profitable production was protection from wild animals and control of scab.

The large operator of early days in the district was W. P. Noble.<sup>118</sup> He entered the mercantile business at the Shoshone Indian Agency near Lander in the early seventies, trading with the gold prospectors and the Indians. He also began handling cattle and sheep, and was listed in 1882 as the owner of nine thousand sheep, eight thousand cattle, and a large herd of horses.<sup>119</sup> His flock was credited that year with a 90 per cent lamb crop and a clip of wool far above average. In addition to operating singly, Noble was particularly successful in his partnerships, and was senior partner in the sheep firms of Noble and Valentine,

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<sup>116</sup> See Biographical Appendix, L. E. Vivian.

<sup>117</sup> William Tweed remained in the sheep business many years. *The Cheyenne Leader*, July 15, 1882, reported his shipping a carload of wool from Point of Rocks Station on the Union Pacific Railroad. This meant an overland haul by wagon through rough country of approximately 90 miles by the shortest trail and over 120 miles by the regular road.

<sup>118</sup> W. P. Noble was one of the most influential builders of the Lander country. Entirely a self-made man, he was widely known as a community leader. At the Noble and Valentine trading post he habitually carried a stock of goods varying in value from thirty to fifty thousand dollars.

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<sup>119</sup> *The Cheyenne Leader*, July 29, 1882, quoting the *Green River Gazette*.

Noble and DeWolf,<sup>120</sup> and Noble and Bragg.

Noble underwent a stirring experience in 1878. His sheep camp was located on Lander Creek at the base of the mountains, four miles east of the Little Sandy. Just before daylight on September 6, his four herders were surprised by five masked, armed men who lifted the tent flap, "got the drop on them," and took their arms and ammunition. They moved the herders a short distance from camp, where they set a guard over them while the remainder cooked breakfast.

One man acted as sentinel all day, sweeping the surrounding country with field glasses. From their conversation the herders assumed that they were professional bandits, possibly a group that had recently tried to wreck and rob a Union Pacific train. They proclaimed their disappointment in failing to capture Noble's payroll and a fine watch he was known to carry. Finally they left on the evening of September 7, taking the entire camp outfit, provisions, wagons, and fourteen horses, in addition to the arms and ammunition. The total value of property taken was \$1,250, part of which belonged to the herders.<sup>121</sup>

During the early eighties the number of sheep in central Wyoming was still small. A sizable flock was brought to the section from Oregon in 1883 by J. D. Woodruff. He had entered the Wind River country ten years earlier and had run cattle on the Shoshone Indian Reservation by obtaining the first grazing lease through the good offices of Chief Washakie.<sup>122</sup> This flock consisted of six thousand head and came over the Oregon Trail to South Pass and thence up to the Reservation on Wind River.<sup>123</sup> A band of these sheep was taken on shares that fall by Dan Ralston, then a boy of sixteen, and he continued to be identified with Woodruff, in one capacity or other, until the latter's death.

In 1884, Woodruff<sup>124</sup> began selling his wethers to Swift and Company, loading at Rawlins, but in 1888 he commenced shipping from Casper. The following year he started driving to Casper to shear. For a period of fifteen years, or until 1899, he continued to sell his wethers directly to Swift and Company. His first partner was his brother, Dr. E. D. Woodruff, but J. M. Teeters was his principal associate in later years.

By 1886 the Fremont, Elkhorn and Missouri Valley (now part of the Chicago and Northwestern Railway) was built westward to Douglas, and by 1888 it had reached Casper. This offered an improved shipping location for much of the wool that had been previously hauled to the Union Pacific, and made Casper the supply base for the range outfits of central Wyoming.

In 1884 the Fremont County tax rolls listed twenty-three sheepmen (Fremont is west of Natrona County in which Casper is located), while in 1889 there were thirty, and the numbers of sheep had more than doubled. In addition to outfits already mentioned, such as the Woodruffs, Tweed, Noble, Bragg, DeWolf, and Ralston, there were other well-known flocks owned by E. Amoretti, L. C. Morrison, A. H. Bright, J. B. Okie, James Irwin, William O'Brien, James

<sup>120</sup> H. G. Nickerson, "Early History of Fremont County," *Quarterly Bulletin*, Historical Department, 2, No. 1 (July 15, 1924):7. Original manuscript prepared in 1886.

<sup>121</sup> *Ibid.*

<sup>122</sup> Grace R. Hebard, *Washakie*, 275.

<sup>123</sup> Mrs. L. D. Woodruff Rider, "Biographical Sketch of John Dwight Woodruff," *Annals of Wyoming*, 3, No. 4 (April, 1926):223, 224, 226. Mrs. Rider says her father reached the Wind River range in 1873, but J. M. Teeters, a former partner of Woodruff in the sheep business, says the flock referred to arrived about October 1, 1883. Dan Ralston of Casper came with him from Oregon that year.

<sup>124</sup> See Biographical Appendix, John D. Woodruff.

E. Morrison, J. LaHoar, Henry Sherman, Kime and Miller, Logan and Huff, Hornicker and Moyer, McTurk and Poire, Thomas Hood, C. P. Dasch of Casper, and Joel J. Hurt on Salt Creek.

Hurt is named by Struthers Burt<sup>125</sup> as "the first man to trail sheep in any large quantity to the cattle country" of central Wyoming. In 1888 he drove one band of three thousand sheep into Natrona County and he returned ten thousand sheep in Carbon County on the latter's assessment rolls of that year. His partner, I. C. Miller, also listed thirteen thousand head. Gradually Hurt moved most of his interests up to Natrona County where he operated until 1893.

He conducted an interesting experiment crossing Dorset rams on range flocks, attempting to advance their normal breeding season and to increase the percentage of lambs. In those days 70 to 80 per cent of lambs was a top crop, and he felt that a little extra work in transferring twins to wet ewes with stillborn or dead lambs would pay ample returns. The move was not successful in advancing the breeding season, and it is now known that the latter is more powerfully affected by climate and feed. His brother-in-law, George Ferris, also a well known sheepman, tried to carry on some of the Dorset crosses.

A banker who gave constructive support to the sheep industry for three and a half decades was A. J. Cunningham of the Casper National Bank. He ran several bands of sheep himself in the territory north and west of Casper, and from branch banks in Shoshoni and Riverton helped finance scores of large, medium, and small operators. By acting as western representative of a large wool firm in Boston he brought much new capital into the sheep operations of central Wyoming through advances on the growers' clips. Finally he sacrificed his personal fortune to protect friends

whose sheep paper his bank held, when the sharp postwar price breaks of 1920-21 occurred. Few, if any, men in the financial field exhibited the unselfishness and stubborn loyalty to the industry which Alex Cunningham displayed.

One other very influential flockmaster in central Wyoming, who appeared in 1892 (four years after the advent of the Northwestern), was J. A. Delfelder. A former president of the Wyoming Sheep Sanitary Board and the Wyoming Wool Growers, he first worked for Charles Bunce at Lander. In a short time he had an interest in the business and the firm became Bunce and Delfelder. When Bunce died, about 1900, Delfelder took over the management and finally the ownership of the business. At his peak he handled about thirty thousand ewes, but the terrible postwar break in lamb prices of 1921 caught him with too much money borrowed, and he was closed out. He entered a lawsuit in self-defense, but passed away shortly after the case was tried.

In 1892 B. B. Brooks of Casper decided to add sheep to his cattle business at the *V* Bar *V*, so in partnership with Robert White he trailed a band of three thousand head from Denver. That fall White went East and purchased a band of finely-bred Vermont Merinos. The first bunch was profitable, but the second turned scabby, and since wool was then on the free list, the price was only ten cents a pound. Others who sheared later received only four cents a pound. Nevertheless he made money after dissolving his partnership and cleaning up the scab, and was one of Wyoming's leading sheepmen for many years.

Thomas A. Cooper was president of the Wyoming Wool Growers for nine years, 1928-37. His family came to Rock Springs in 1874, and in 1886 he worked

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<sup>125</sup> Burt, *Powder River*, 348.

through the lambing period for the Edwards Brothers. Thereafter he "hired out" to some other outfits during shearing—wrangling and sacking the wool. In the spring of 1887 his family moved to Glen Rock after lambing, and he worked on different ranches, herding sheep for six years. During this time he also began working with some of the shearing gangs established by John Holladay, and for several years throughout the nineties he sheared from southern Wyoming up into Montana with the traveling crews.

He purchased his first band in September, 1899, and placed it on land that he had located on the head of Salt Creek, along the border of Natrona and Converse counties. In general he attempted to develop a purebred flock of Rambouillet, without registering them. Never a large operator, he was peculiarly efficient in running a flock of about five thousand ewes. His wool graded fine and fine-medium and for years he sold it in the original bag.<sup>126</sup> His range consisted of sixty sections, half of which was patented land; a quarter, federal land; and a quarter, state land.

#### NORTHERN WYOMING

Livestock rushed into the Powder River country and the eastern slope of the Big Horns at the close of 1876. Cattle arrived first and it was six years before a flock of sheep was permanently established. In 1883 D. A. Kingsbury drove a large flock into Johnson County from the Laramie Plains. His headquarters were on Kelly Creek, west of Kaycee, and he ranged into the higher altitudes of the Big Horns for his summer grazing. In 1886 he supplied D. C. Brown with a flock to run on shares, and in 1889 he furnished a flock to A. M. and A. L. Brock.<sup>127</sup> The first bands after Kingsbury were handled by George T. Beck,

E. B. Vial and Sons, S. A. Iden, and a sheepman named Iliff.

Part of the Beck flock originated in an interesting way. In 1882, four young men in their early twenties left St. Louis during October, seeking health, adventure, and fortune in the West. The group included a bank clerk (William J. Thom of the Mechanics Bank in St. Louis); a scion of an old established St. Louis family (Wallace W. Greene); a printer and embryonic newspaper publisher (Thomas J. Bouton); and a son of a hotel keeper (Albert Eaton). None were stockmen, nor had any of them had experience in ranch life. Inadvertently, they invested in a ranch and flock of sheep in Huerfano County, Colorado, on Greenhorn Creek. The nearest town was Walsenberg, and their post office address of Greenhorn was thoroughly descriptive of their contemporary fitness.

Within a week they discovered that their sheep outfit was centered in cattle country, and the coolness of their neighbors was obvious. Of a morning they might find a skull and crossbones at the entrance to their corrals, or a crippled sheep would be lying a short distance from their cabin door, obviously injured by human hands. The situation became so tense that the city lads took nightly turns as sentinels over their flocks, using outdoor bivouacs throughout the entire winter.

In the spring a buyer for the ranch was found, and Eaton and Bouton returned to St. Louis. Thom and Greene, on the other hand, started up the trail to northern Wyoming with the flocks. Greene had a friend located a few miles west of modern Sheridan, a son of Sena-

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<sup>126</sup> Cooper, Interview, August 1, 1940.

<sup>127</sup> A. L. Brock, Buffalo, Wyoming. Letters to author, February 28, March 11, and May 28, 1940, provide much of the information on the Johnson County sheep interests.

tor James P. Beck of Kentucky. George Beck had come west at the time of the Northern Pacific surveys, and had selected a property known as the Beckton Stock Farm (later owned by Cameron Forbes). Much of the summer of 1883 was spent in moving the flock, which passed north via Cheyenne, Fort Fetterman, and Fort Phil Kearney, along the stage and freight wagon route.

The outfit included a sheep dog, a saddle horse, and a team wagon for bedding and supplies. The summer was characterized by daily afternoon showers, and the herders' blankets were never dry. Beck welcomed them to his ranch. On his advice the two adventurers bought property on Rapid Creek, where they settled down to the business of winter herding, lambing, shearing, etc. In 1884 the Stebbins-Conrad-Bank—later the First National—was established in Buffalo, and the position of bank clerk was offered to Mr. Thom. The flock was sold to George Beck and this addition gave Beck the largest flock on the Sheridan and Johnson County tax rolls in 1884.

In the early nineties Fred Waegle, Charles Waegle,<sup>128</sup> and George Kaltenbach began handling sheep in Johnson County, getting their foundation stock from J. D. Woodruff. In 1894 David and Richard Young established their flock on a share basis from Robert Taylor, and about the same time Lang and Baldwin started a share flock under Taylor's sponsorship. James A. Dowling, former foreman of the "76" Ranch, founded his flock on sheep from D. A. Kingsbury in 1898. Barney Long of Buffalo, one of the most picturesque of Wyoming's Irish contingent, established his flock just before the turn of the century.

During the nineties, D. A. Kingsbury took his stepson, J. W. Todd, into partnership to form the Kingsbury-Todd

Company, in 1893. A little later J. Elmer Brock joined Todd, and the two finally bought out the Kingsbury family and acquired the entire holdings of the Kingsbury-Todd Company. Still later Todd bought up the Brock interests, but after a few years of operation retired to California.<sup>129</sup>

J. G. Oliver was an Englishman near Buffalo in the early nineties who established a flock and was soon leasing sheep to various parties, including Jack Baldwin, Frank Eichner, and E. M. Valentine. Oliver came west with the Union Pacific, but later started a freighting business between Rock Creek Station on that road and Buffalo.

Northern Wyoming early had a regional sheep association with headquarters in Buffalo. It was organized in 1899, and in the first part of the century was very active in getting grazing established on the forest reserves and in combating scab and other disease. The association hired an inspector, E. S. Morgan, who for several years was foreman for Healy and Patterson. In 1904 the officers were: Richard Young, president; E. D. Metcalf, vice president; George Kaltenbach, secretary; and J. G. Oliver, D. A. Kingsbury, L. R. VanHouten, and D. C. Brown, executive committee.<sup>130</sup>

Over the years the largest flock in Johnson County was owned by Healy and Patterson (brothers-in-law). "Patsy"

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<sup>128</sup> The Waegles came originally from Missouri and had previously operated in the Big Horn Basin near Meeteetsee. Here Charles Waegle had a partner named George Opel, and these two maintained sheep in the Basin, after Fred and Charles Waegle went into Johnson County. Shortly before World War I they sold the Basin outfit to James and Martin Hibbard, Opel going to Canada and Charles Waegle retiring to California.

<sup>129</sup> Brock, Letter, March 11, 1940.

<sup>130</sup> *Wyoming Tribune*, Cheyenne, March 7, 1904.

Healy<sup>131</sup> was one of the outstanding sheep figures of the West for thirty-five years, operating in Utah, Nevada, Idaho, and Wyoming. By 1880 he had saved enough money to go into the sheep business, wintering his flock north of Salt Lake and trailing to the foothills of southeastern Idaho for summer range. When he first went into the country, flockmasters did not graze in the high mountains, but about the middle of the decade he began going into them north and east of Soda Springs.

As southern Idaho settled up and the sheep numbers increased, the competition became very severe. Healy moved his flock to the Red Desert of Wyoming in the fall of 1891. The herd wintered there and the next spring he moved them near Lost Cabin to lamb. As summer came on, the flock went high into the Big Horn Mountains. The Johnson County War<sup>132</sup> had just ended, and the ranges around Buffalo were depleted of cattle. Hence the opportunity for a flock was unusual, and the sheep outfit trailed into Johnson County and remained there.

#### EASTERN WYOMING

Eastern Wyoming was first settled by cattlemen, but a few sheepmen were operating there in the late eighties. John Morton, Al Myres, and George Powell were near Douglas, and Henry Reed, Cal and John Hargrave, and Jacob Mills were near Lusk. The Willson Brothers also started with sheep at their Running-water Ranch on the Niobrara in 1887. They had established a cattle ranch in the early seventies when they first came to Wyoming, but Eugene Willson was always interested in sheep and took over the management of the flock. Summer range was obtained near Laramie Peak, or in the lower-lying ranges to the north. Eugene Willson's son succeeded to the control of the sheep on his father's death.

When the townsite in Douglas was

established in 1886, an Ohio physician who had come to Wyoming four years earlier bought some lots from the railroad. As the depression of 1892 hit, he purchased a ranch property south of Douglas on the North Platte. Here Dr. J. M. Wilson established a flock of sheep, using summer range on the northeast slope of Laramie Peak, while his winter range lay along the river south of Orin Junction. It was 1914 before the country south of his headquarters settled enough to interfere with his winter range, and several years later before he had to begin feeding his ewe bands.

For six years, 1896–1901 inclusive, Dr. Wilson<sup>133</sup> trailed sheep eastward from Oregon. Usually he handled ewe bands, purchased in the Prineville-Heppner country, but he sometimes included wethers. These were shipped on to the Fremont, Nebraska, feedyards for fattening. Dr. Wilson exercised a leadership among Wyoming sheepmen for a longer period than anyone else, except Senator Warren, and was perhaps closer to his contemporaries than the Senator. He was an accomplished orator, a skilled parliamentarian and presiding officer, and a sturdy fighter against bureaucratic control of the West. He was president of the Wyoming Wool Growers' Association longer than any other man.

A few other flocks lay to the northwest between the North Platte River and the mountains, but the principal large operation was that of the Swan Land and Cattle Company with headquarters at Chugwater. This was one of the oldest ranges in Wyoming, and was originally

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<sup>131</sup> See Biographical Appendix, Patrick Healy. Letters from Alex Healy, Worland, Wyoming, to author, June 11 and June 24, 1940; also interviews O. F. Bacon, Boise, Idaho, May 28, 1940, and A. L. Brock, August 2, 1940.

<sup>132</sup> See General Appendix A.

<sup>133</sup> J. B. Wilson, McKinley, Wyoming. Letter to author, September 16, 1938.

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devoted to cattle. In its heyday it extended from the Nebraska line through Laramie, Albany, and Carbon counties to Fort Steele. It applied systematically a policy of buying control of its water, on both government and railroad lands. By 1905 it owned thirty miles of stream frontage along the Chugwater and leased four hundred square miles of railroad land controlling water in Albany County. It also owned twenty-three miles of frontage on the Big Laramie River in Albany County, and along Sybille Creek, Bear Creek, and in Goshen Hole it controlled immense areas by advantageous leases and ownership of headquarters.

The Swan Company was frequently the target of the politician and grass poacher. It gained some notoriety about 1905 when it petitioned for a second sheep trail in the neighborhood of Blue Grass Creek, a few miles south of Laramie Canyon.<sup>134</sup> A number of small ranchers were inside these boundaries in the Laramie foothills, and a group of them under the leadership of State Senator John McGill met the Board of Laramie County Commissioners to oppose the move. At that time the Swan Company returned forty thousand sheep on the tax rolls, and the opponents claimed that it intended to increase the numbers to a hundred thousand head. Reports indicate that at one time the flock did contain 112,000 ewes.<sup>135</sup>

In the first decade of the current century a number of smaller flocks sprang up south of Newcastle and east of Douglas. Several headquartered around Manville and Lusk, and in 1904 there were about 140,000 head shorn at the latter point.<sup>136</sup>

#### THE IRISH CONTINGENT

While the cattle industry attracted many younger sons of nobility and other adventurers of British birth to Wy-

oming, the sheep industry seemed to hold more attraction for the Irish and Scotch. Usually these two nationalities were fostered by one of their own successful countrymen who had previously come to Wyoming.

John Mahoney of Rawlins did much to advance the welfare of young Irishmen. Much of Mahoney's business advance depended on his ability to recognize merit in his young Irish partners who operated share flocks with him. John Mahoney was a survivor of the Meeker massacre of 1879, though he had come to Wyoming two years earlier in the military service. He started in the sheep business modestly, but by good management and close attention developed one of the larger outfits within the Territory. He was a good judge of trustworthiness, and many an Irish boy got "coin to jingle to his jeans" from John Mahoney's interest in him.

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<sup>134</sup> *Rocky Mountain Times*, Denver, Colorado, May 5, 1905.

<sup>135</sup> S. Wylie Brown of Wheatland reports that the first bands of sheep were trailed to summer range on the Laramie Plains in 1904, through Halleck Canyon (probably the Laramie Canyon reported in the *Times*). John McGill, who disliked John Clay, previous manager of the Swan Company, had a ranch on Laramie Plains and led the local ranchers in trying to keep more sheep from reaching the Plains through Halleck Canyon. Curtis Templin (letter, December 15, 1945) writes that "any meeting . . . with the Board of Laramie County Commissioners in Cheyenne was entirely out of line, since the Commissioners would have no power to function in such a matter as regards government lands, and the neighbors in any event were able under the law to prevent the sheep from trespassing on their owned or leased lands. . . . McGill . . . did his utmost, and . . . for a year or two the (Swan) outfit leased more or less private holdings on Trail Creek, a few miles south of Halleck Canyon. . . . The effort made by McGill gradually died out, and the outfit again went back and trailed its sheep through Halleck Canyon and also Tower Canyon, as they have done every year since. . . . We presume McGill also had in mind that in the event he and his neighbors could prevent or make very difficult the trailing of sheep from this east side to the Laramie Plains, the outfit might abandon its idea of increasing the sheep herd and decreasing the cattle herd."

<sup>136</sup> *Cheyenne Daily Tribune*, April 13, 1904.

Best known nationally of this group was Mahoney's ultimate partner, Pat Sullivan. When flocks began to stream into Natrona County in the eighties, Pat came north from Rawlins to develop with the country, starting his own operations in 1891. Sullivan was a most unusual sheepman in that he managed his flocks from a distance instead of living with them. Unlike most Irishmen, he was a Republican, and when Senator Warren died Sullivan received the appointment until the next regular election. At the peak of operations both Mahoney and Sullivan had flocks of fifty to sixty thousand head apiece.

A second Irishman of great importance was Tim Kinney of Rock Springs. Kinney came to Wyoming with the secondary Union Pacific construction in the early seventies, but first turned to cattle. Not until 1887 did he invest in the sheep business, then principally because the winter of 1886-87 wiped him out of cattle. However, his demonstrated ability gave him a sufficient credit rating, and he was able to start a large operation almost immediately. Naturally conservative, he kept reinvesting his earnings until he had a flock of about fifty thousand ewes.

Another firm that did much to establish Irish flockowners in central Wyoming was Noble and Bragg of Lander, Casper, and Rawlins. At least eight of the mid-Wyoming flocks that were prominent before the first World War were the products of Fred Bragg's backing.

Most of the Irish character notes were furnished by an associate of Pat Sullivan's, Eugene McCarty. McCarty came directly to Casper in the early nineties as herder and later as camp mover for Sullivan. About 1896 he obtained a small flock of his own, and by 1900 was Sullivan's partner. In addition to their ownership of breeding flocks, Sullivan and McCarty also conducted a big busi-

ness in buying and shipping sheep. "Gene" would go through the range country contracting lambs, and by 1904 they were able to forward twenty-five to thirty cars weekly to the Fremont Yards, to fill, feed, or prepare for the packer or feeder buyer.

Jennings<sup>137</sup> relates that Gene contracted lambs too high one year. To relieve pressure he arrived at each receiving station—Bonneville, Powder River, Moneta, Lysite, Wolton, and Lander—a few days late. He would inquire what had happened to the man he expected to deliver on that day. When told that his customer had tired of waiting and had shipped the day before, Gene would publicly tear up the contracts. Hence his later customers required a down payment of a half dollar per head when signing the contract. However, Gene's friends defended him on the ground that it was canny business, and all enjoyed his maneuvers.

Gene's theatrical nature was well displayed in an Omaha market incident. He had consigned several carloads of lambs to Clay-Robinson and Company, and their head lamb salesman, Walter Dearth, was handling the transaction. It was Gene's custom at that time to consign to Chicago, but to unload at Omaha to feed and "try the market." Walter had just priced the lambs to a farmer feeder at seven cents, when Gene came down the alley unnoticed and asked Walter what he was doing with them.

"I just priced them to this man at seven cents."

Gene flew into a rage. "If that's all you are getting, just load them onto the train for Chicago."

"Gene, I *priced* these lambs to this man at seven cents, and if he wants them at that price, he gets them!"

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<sup>137</sup> Roy Jennings, Fremont, Nebraska. Interview with author, August 3, 1938.

McCarty responded, "If you *sell* those lambs at *seven* cents, I'll never ship another load to Clay-Robinson as long as I live," and went stamping off.

As soon as Dearth could get away, he strode to Clay-Robinson's office, hunting Gene. When cornered, he demanded what Gene meant by such a performance, and told him he did not "give a damn" whether Gene *ever* shipped to Clay-Robinson again.

Soothingly, Gene replied "Take it easy, Sonny Boy, take it easy! I thought ye needed a bit o'help."

#### ROBERT TAYLOR AND THE SCOTCH

The constructive influence possible for one man to wield in the industry was exemplified by a Scotchman, Robert Taylor,<sup>138</sup> who strove more than any other single man, by personal precept and practice, to increase the numbers and quality of Wyoming sheep. About 1880 he drove two trail bands of Merinos from Bakersfield, California, to Rock Springs, Wyoming, crossing the regular trail via Nevada and Utah, and wintering on Bitter Creek east of Rock Springs. He established his headquarters at Twenty-Mile Ranch, that distance west of Rawlins, and ranged his flocks as far east as that city. Here he had access to the mountains for summer pasture and utilized ranges on Antelope and Bitter creeks in the Red Desert for winter grazing. By the end of the decade he was running between thirty-five and forty thousand head.<sup>139</sup>

In 1884 he was joined by his brother-in-law-to-be, W. T. Hogg, a Scotchman from the north of England who started to herd a single band for him. The first winter Hogg's sheep wagon burned in a region known to this day as "Burned Wagon Basin." Some time between 1885 and 1889 Robert Taylor made him his foreman.<sup>140</sup> In 1891 Taylor moved to Casper, and bought an old cow ranch,

the *FL*, on Poison Spider Creek, on which his nephew, George Taylor, was foreman.<sup>141</sup> Later this ranch was managed by another Scotchman whom he helped start in the business, William Grieve (father of Robert Grieve of Casper, now located on the same ranch).<sup>142</sup> Taylor also bought the *UC* Ranch, and moved part of his Rawlins outfit to it. About this time, too, he obtained a big sheep ranch in Montana, where he had trailed sheep in the eighties. His foreman there was Adam Paterson, another Scot.

Some time during the mid-nineties Taylor decided that it would be profitable to feed his marketable sheep before selling them for slaughter, so purchased land in Nebraska. At Grand Island he bought a ranch where he could full feed his old ewes and wethers. Then at Elsie, near McCook, he established feedlots, while at Abbott he placed his purebreds. At the peak his commercial flock contained about a hundred thousand ewes and three-quarters as many wethers.

Most of the Scotch sheepmen in central Wyoming received their start with Taylor, either on a partnership or share basis. Among these outfits should be mentioned Lang and Baldwin, Richard and David Young, George Taylor, Hogg Brothers, and John and William Grieve. James and Donald Michie were contemporaries who went out to New Zealand and came over from California at the same time as Robert Taylor. They were close friends but never his partners, as was also the case with David and James Dickie of Meeteetsee. In his day

<sup>138</sup> See Biographical Appendix, Robert Taylor.

<sup>139</sup> Richard Young, Buffalo, Wyoming. Letter to author, July 5, 1938.

<sup>140</sup> Thomas Balmer, Medicine Lodge, Kansas. Letter to Mrs. Sarah I. Hogg, Cody, Wyoming, June 25, 1940.

<sup>141</sup> Miss Mary Hogg, Cody, Wyoming. Letter to author, July, 1940.

<sup>142</sup> Cooper, Interview, August 2, 1938.

Taylor was one of the prominent breeders of the United States. From 1890 forward he exhibited at American fairs and visited the English shows with great regularity. His production of range rams was a vital factor in improving Wyoming wool and mutton production.

It is difficult to date the advent of sheep in the Bighorn Basin. The *Cheyenne Leader*, April 5, 1884, stated that in 1881 there "were not thirty thousand head of sheep in the region of the Yellowstone; now there were over five hundred thousand." Most of these were in Montana; but there was a small development in northern Wyoming almost simultaneously.

Credit as the first sheep operator to locate in the Basin is often claimed for Charles Worland,<sup>143</sup> but few of his flock survived the rigors of the 1886-87 winter. The next year, T. N. ("Newt") Howell of Red Bluff, California (who established his headquarters south of present-day Byron on the Shoshone River, west of modern Lovell), was making a deliberate search for salt range for winter grazing. By 1892 he was running ten thousand head, after being joined by his son, James F. Howell, and was marketing both sheep and wool through Billings, Montana. To facilitate this latter procedure he would drive into Montana each spring to lamb and shear.

In 1889, David and James Dickie came north from Rock Springs to Meeteetsee where they first established themselves to the southeast, on Enos Creek. They developed an exceptional stock of high grade Rambouilletts which contained forty thousand ewes at the peak. However, in 1895, Thomas Cooper<sup>144</sup> returned through the Basin from Billings after completing the shearing season, and stated that the number of flocks at the time could be counted on one's fingers.

Recognizable towns were practically

limited to Otto and Meeteetsee. Lovell, for example, contained only a store or two and a saloon. Yet by 1897 there were more sheep than cattle, and in 1899 the Union Pacific Railroad reported 387,014 sheep and less than 22,000 cattle. Also in 1899, Newton Brothers, Taylor and Hogg, J. F. Howell, and R. B. Heritage of the Basin are reported to have shipped via Billings between twenty and thirty-five thousand pounds of wool each, while the Dickie Brothers shipped fifty thousand pounds.

When Robert Taylor moved part of his Rawlins outfit to the *FL* Ranch in 1891, he left the Rawlins spread in charge of W. T. Hogg. A partnership was formed between them, known as Taylor and Hogg, which continued until 1898. In that year the Taylor and Hogg interests purchased the *YU* Ranch near Meeteetsee from the Carey (*CY*) outfit. Forty-five hundred sheep were brought into the Basin from Rawlins. This operation continued until 1904, when Hogg purchased Robert Taylor's interest in the *YU* and formed a partnership with George Taylor. The latter had run sheep on shares with Taylor and Hogg in the Basin between 1883 and 1903. The new partnership was called Hogg and Taylor and continued until 1909, when it was dissolved. George Taylor took his share of the sheep into the Tensleep country.

Shortly thereafter the W. T. Hogg Company, Inc., was formed, composed of W. T. Hogg, his brothers Ted and Adam Hogg, his cousin Thomas Hogg, and William English. This company had the *YU* Ranch as headquarters. It operated within a thirty-five mile radius to Carter Mountain in the summer and to the Little Buffalo Basin and Lower Fifteen Mile country in the winter, grazing as far as the McCulloch Peaks

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<sup>143</sup> Cooper, Interview, August 2, 1938.

<sup>144</sup> *Ibid.*

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near Cody. The original *YU* outfit consisted of 1,280 acres, mostly uncleared lands with log cabins for buildings.

Gradually it was developed into one of the outstanding headquarters in the Big Horn Basin. When sold in 1917 to Eychaner and Winniger of Johnson County, it was producing two thousand tons of hay, was well fenced and had up-to-date buildings.<sup>145</sup> Each man in the Company had added his own homestead, while other land was bought. The most important purchase was in 1906, the "George Wise Ranch" at the foot of Carter Mountain on Meeteetsee Creek. It was used principally as a headquarters in the summer for packing and handling supplies to the Forest Reserve on Carter Mountain, and consisted of 580 acres of deeded land and 5,800 acres of leases. When the Hoggs sold the property, there were twenty thousand sheep and a thousand cattle on the ranch.

The W. T. Hogg Company became well known all over Wyoming (but especially in the Basin) for its high percentage of graded, long-staple wool. The big-framed sheep served both as mutton producers and heavy shearers. At the *YU* after 1904, a "fine ewe" band was hand picked, and a few sheep, the best in each band, were put into a special band. To these were added about six hundred fine-wooled Rambouillet ewes bought from the Butterfield Sheep Company of Weiser, Idaho, and the Baldwin Sheep and Land Company of Hay Creek, Oregon. Rambouillet rams to mate to these ewes were selected from strains shown by Robert Taylor at the International Live Stock Exposition in Chicago, and from the prize stock bred by King Brothers at Laramie.

This band was maintained at about eight thousand head, and from it a buck herd was raised. A cut from this herd was used to replace the rams in the commercial flock, and the remainder

were sold quite widely throughout Wyoming. In 1906 there were also about eighteen hundred Shropshires and Hampshires which had been used for crossing, but these were sent by Hogg and Taylor to their Wisconsin properties.<sup>146</sup> However, a few registered Lincolns were always kept on the *YU* to mate to ewe bands that seemed to be degenerating in size.

Other flocks became prominent in the Meeteetsee area, especially those owned by the Sayles Sheep Company, a subsidiary of the Phelps interests of the Z-T Ranch at Pitchfork. At its peak, the latter handled about thirty thousand ewes. Some of the Sayles Sheep Company's bands were obtained from the Dickies. Ned Sayles' brother, Henry, was a big operator in his own name, as well.

\* \* \*

The settlement of the territories with sheep in the bustling years after the Civil War was attained by individual accomplishment rather than by organized movement. Each flockmaster had first to discover methods of coping with the varied conditions in plains, deserts, and mountains, and then to acquire some form of rights to the range he used. In certain parts of Idaho and Wyoming, however, his problem was merely to organize methods of flock management so as to develop the resources of the region. In the grassier sections of Montana and Wyoming he had to meet the competition and physical opposition of cattlemen, as well. The ovine history of these three states is based on the achievement of particular flockmasters, the vicissitudes they endured, and the ingenuity they exhibited. "Rugged individualism" conquered the West and established a most self-reliant citizenship.

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<sup>145</sup> Hogg, Letter, July, 1940.

<sup>146</sup> *Ibid.*

*High-tailing it from Cheyenne on the Deadwood Stage,  
Stampeding drives of longhorns through the dusty sage,  
Scatt'ring bands of trail sheep, while the herders rage!  
The Black Hills gold sure draws you—top the Deadwood  
Stage!*

—From an old song of the West

\* 15 \*

## Plains and Foothills

NEITHER the sweeping plains of eastern Colorado nor the broad stretches of the Dakotas were disturbed by the great Oregon and California migrations. Sheep husbandry in these regions, therefore, was a purely pioneer venture. Farther west and south, the mountains provided adequate summer range. In the Dakotas the Black Hills and high butte country substituted. Possibly the loss in altitude was compensated by the higher latitudes. Along the hundredth meridian, the states characteristically developed farm flocks in their eastern sections and range flocks in the west. Beyond Fort Pierre, the expanse of territory, the ravages of predators, and the insecurity of operation under threat of homesteaders made farm flock routines impossible, and the herding methods so distinctive of the southwest imperative.

Gold attracted flocks to these areas, just as in '49 it drew them to California. Before the Civil War, discoveries in Colorado stimulated the "Pike's Peak or Bust" migration, while the Black Hills strikes of the mid-seventies lured flocks northward from Colorado and Wyoming. Movement was not safe until the final defeat of the Sioux and Cheyennes in the winter of 1876-77. For a few years the territory along the Nebraska and Dakota boundaries, contiguous to Wyoming, experienced concurrently the

wild romances of mining camp, long-horn, and trail flock.

\* \* \*

### COLORADO

Colorado occupies a unique position in the development of the American sheep industry. Its central, southern, and southeastern flocks connect directly with the sheep brought to the United States by the old *conquistadores*; those of its northeastern portion are related directly to the sheep of the Atlantic Coast and the Merinos that moved westward from Connecticut, Vermont, New York, and Ohio; its northwestern section was settled with bands from the West—Utah, California, Idaho, and western Wyoming. This last region was the latest of the modern commercial sheep growing areas to take up the species.

Colorado's eastern plains offered the trails by which the sheep from New Mexico moved to northern pastures and feedlots, while its irrigated valleys vied with those of neighboring Nebraska in establishing the modern feeding industry. Colorado thus has undergone the most varied sheep experience of any of the western states.

Despite the fact that the state was well known to the trappers and traders of more than a century ago, its mountain barriers delayed sheep settlement until a relatively late date. The first source



FIG. 77—One silver dollar per sheep.

of flocks was New Mexico, and the earliest permanent establishments to enter the country clustered along the upper reaches of the Rio Grande and Conejos rivers in the San Luis Valley. This settlement was followed by a development in southeastern Colorado along the Arkansas River, with a secondary center which appeared in the vicinity of the Cache la Poudre and along the South Platte. After these beginnings which occurred in the fifties, sixties, and seventies of the last century, there was a lull in the spread of commercial sheep breeding until the end of the second decade of the present century.

About 1821, *pastores* from New Mexico began trailing up the Rio Grande for summer pasture and entered the mountains on either side of the Conejos River. This movement was resented by the Ute Indians, but each year the sheepmen established a firmer foothold. It was the middle of the century, however, before flocks began to be based permanently on this region. The village of San Luis was founded on the east side of the San Luis Valley in 1852 and contained the headquarters of a considerable number of Mexican flock owners. Guadalupe was

established on the north bank of the Conejos two years later.

According to available records, the pioneer sheep owner in the valley was José Ilario Valdez,<sup>1</sup> who settled near the location of San Luis village in 1851. Three years later the Indians attacked this village and all of the inhabitants fled to San Pedro where there was a larger and stronger plaza. Another pioneer in the vicinity was Dario Gallegos, whose flock totaled twenty-six thousand head at the time of his death. In 1859, Gallegos adopted a six-year-old American-born boy by the name of J. C. L. Valdez, who carried on the Gallegos flock after the death of its founder.

In 1856, Luis Montoya came up the Rio Grande and established another of the larger permanent flocks. He, too, located near San Luis, first grazing his sheep in the Culebra Range to the east for a few years and then moving into the Rio Grande just west of present day Del Norte.

Numbers of these earlier Mexican sheepmen could neither read, write, nor

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<sup>1</sup>C. E. Gibson, Jr., *Early San Luis Valley Settlers*.

count, and a frontier story<sup>2</sup> is related about such a man who sold five thousand sheep at a dollar a head. Since he could not count, and did not want to be cheated, he required the buyer to drop one silver dollar into his hat as each sheep passed singly through the gate. To be safe, he stood at the side of the cutting gate, where he could stop the flock the moment the dropping dollars did not match the scurrying line of sheep.

Los Pinos Valley<sup>3</sup> also settled rapidly with sheep growers during the later fifties. Antonio José Durán, José Francisco Salazer, Rafael and Tomas Aténcio, Francisco Luján, and Pedro Lobato were all pioneers who ran small flocks, while José Damian and his three sons became extensive operators. Also in the late fifties, four small boys who grew into later prominence in the sheep business—Juan José López, Luis Romero, David Romero, and Domécio Salazár—came into Los Pinos Valley with their parents. These families settled away from the villages and established themselves with such an air of permanence that the Indians started a bad forest fire in 1859 in order to drive them from the country. This attack was one of the last made by the savages, as the troops drove them from the country in 1863 and their later raids were only for the purpose of stealing livestock.

In 1864 Teofilo Trujillo<sup>4</sup> came up from Taos and the following year bought the Rancho de Los Ojitos from George Crist, about nine miles northwest of Fort Garland. He later moved with his family to Sand Creek near Medano Springs where Pedro Trujillo was born in 1866. Here Teofilo Trujillo built a remarkably fine home for the period—one with many stained glass windows. This country was a favorite Indian hunting ground and they often stole sheep, cattle, and horses from the lone settlers.

Teofilo Trujillo ran sheep, cattle, and many horses for a number of years and he grazed his stock to the north of San Luis Lake. To the south side of this lake Major Lafayette Head had brought in approximately a thousand New Mexican sheep of poor grade in 1865. These sheep were of low quality as they sheared only about two and a half pounds per head.

About this time Holly and Morrison had begun operating a toll road over Mosca Pass and supplies were brought in from the east to Montville, a small village of some twenty houses. There was considerable competition between sheep and cattle, as in 1870 the Dickey Brothers trailed large herds of Texas steers into the eastern San Luis Valley—grazing them at the present-day site of the Medano Ranch. Also, Salazár and Gallegos of San Luis village sent in cattle under charge of Juan María López, their major-domo for fifteen years.

During the Civil War period, many of these Mexican sheep owners became ready prey for lawless frontier roughs. There was a great demand for both mutton and wool in Colorado during this time and sheep were quickly disposed of at excellent prices—usually without incriminatory evidence. Thefts might include only fifteen or twenty head from a shepherd's flock, if they chanced to graze into a glade where they could be easily cut off, or the entire flock might be taken and the herder murdered. Even the distant Indian flock owners of Arizona and New Mexico were not exempt.

As a young man of twenty-five years,

<sup>2</sup> Gibson, *Early San Luis Valley Settlers*.

<sup>3</sup> C. E. Gibson, Jr., Pamphlet 349/48, W.P.A. Manuscript.

<sup>4</sup> W.P.A. MSS. on Colorado Pioneers in Library, State Historical Museum, Denver, Colorado.

Charles Beehrer<sup>5</sup> met two Texas men who wanted him to go to Arizona with them in the summer of 1862. They claimed that the Indians had stolen three hundred thousand sheep which could be recovered if these bold spirits could only enroll enough men willing to take a chance. The Colorado market was so good that it could absorb these sheep immediately and the adventurers could divide the money. As a clinching argument, they pointed out that "taking this stuff away from the Indians could not be considered wrong."

A brother of one of these Texas men lived on the South Platte River twenty miles below Denver. Apparently he was an honest fellow for he not only told his adventurous brother that he should not take young Beehrer into his gang, but also warned Beehrer against them on the ground that Beehrer did not know what kind of men they were. The fortunate nature of this advice was later established by the fact that the leader proved to be "Dutch John" Wagner. With another of the group, Jack Gallagher, he was later killed by the Montana Vigilantes, and all of the gang turned out to be notorious highway robbers.

In the early eighties a number of Mexican families from the San Luis country herded sheep close by the Medano Ranch, and Dickey Brothers sold out to Adee and Durkee. These men were young New Yorkers, the father of the second partner being the Durkee who originated the widely advertised "Durkee's Salad Dressing" a generation back. Adee committed suicide in the late eighties and part of the ranch, the Zapata, was sold to F. L. Capers. In 1889 Capers sold this property to the Mormon Church, and finally both the Zapata and the Medano Springs Ranch were sold to L. B. Sylvester. The deed to the property received by Sylvester is signed in longhand "Joseph Smith,

Trustee in trust for the Church of Jesus Christ of the Latter Day Saints."

Teofilo Trujillo added sheep in large numbers to his cattle and horse holdings in the early eighties, and trouble developed with the other cattlemen. One day during the absence of the family, cowboys burned Trujillo's headquarter buildings. They broke the stained glass windows, rode out to the sheep camp, and shot, killed, or crippled over one-half of the band of sheep in plain sight of the herders. Teofilo moved to San Luis village and his son Pedro moved to Monte Vista, where he started a small horse and cattle ranch. After these ranches were purchased by L. B. Sylvester, they were joined with many other small holdings to form Sylvester's present Medano-Zapata Ranch.

Sheep first spread into the plains country of southeastern Colorado over Raton, La Veta, and Mosca passes. A few of these flocks were still in Mexican hands, but the time was ripe for the arrival of the Americans. Practically the entire industry of southern Colorado was controlled by men of Spanish or Mexican descent. As late as 1879, a staff writer for *Harper's Magazine*, A. A. Hayes, Jr.,<sup>6</sup> reported seeing a very large flock of Mexican-owned sheep on San Carlos Creek, just where it left the mountains southwest of Pueblo. He also praised the devotion of the Mexican herders to their flocks, and commented on the picturesqueness of their watchful sentinelship, as he saw them outlined against the lowering sun.

#### YANKEE OWNERS AND EASTERN BLOODS

Americans began to enter the industry in a scattering way about 1865 or 1866. Alexander Hicklin trailed a flock of

<sup>5</sup> Al Noyes, *Dimsdale's Vigilantes of Montana*, 263-264.

<sup>6</sup> A. A. Hayes, Jr., *Harper's Monthly Magazine*, 59, No. 354 (November, 1879) :882.

about one thousand head to the Greenhorn Creek Range south of Pueblo in the very northern border of Huérzano County. The *Colorado Chieftain* reported in 1868:

About a year and a half ago we made a careful computation of the number of sheep in the counties of Conejos and Costilla and found upwards of 150,000 sheep. Now there are about 195,000 head, based on the assessments. Los Animas County has about 87,500, and Huérzano and Pueblo counties about 35,000, totaling 317,500 sheep for southern Colorado."<sup>7</sup>

Their flocks were generally of the coarse-wooled Mexican variety. The editor of the *Chieftain* also emphasized the growth in the size of flocks, showing that "the largest herd of sheep in Pueblo County contains thirty-five hundred head."

One of Colorado's pioneer figures in the sheep industry dates back to the mid-sixties. Colonel Albert Boone Jones, a grandson of Daniel Boone,<sup>8</sup> came to La Veta and Walsenberg in 1865 or 1866. At ten years of age he accepted a job of sheep herding, was paid in sheep and at the age of thirteen had a flock of a thousand head priced at a dollar per head. By 1870 the Texas trail herds were demolishing his range in Huérzano County and gradually the competition became too severe for him to meet.

Almost simultaneously the sheep business began to develop in the northern part of the state—on the eastern slope of the Rockies in the vicinity of the Cache la Poudre River. Three bands went into Larimer County in 1867. Thomas Weldon located in the Big Thompson Valley, E. W. Whitcomb on Box Elder Creek, and Captain J. S. Maynard on Maynard Flats, well to the north of Fort Collins.<sup>9</sup> Whitcomb made his headquarters in Cheyenne and ranged his sheep over much of the intervening area. Captain Maynard bought Merinos in Canada and Illinois in 1869, shipped them over the newly completed Union Pacific Railroad to Cheyenne, and drove

them overland to his Meadow Springs Ranch near Carr, now in Weld County.

In 1871 William N. Batchelder<sup>10</sup> settled in Spring Canyon near Fort Collins. He imported a carload of pure-bred Merinos purchased in Vermont from several breeders at a cost of four thousand dollars, in January, 1873. It took two weeks to reach Cheyenne by rail and a week to trail them to Spring Canyon.

These pioneer operators did so well that by 1878 there were seventy-five thousand sheep in the county. In the spring of 1872 Batchelder reported that he was paid sixty cents a pound for brook-washed wool and forty cents for the unwashed. "A few years later I had associated with me in the wool growing business, the Bristol Brothers of Vergennes, Vermont, and Henry Dewey of Bennington, Vermont, who was a brother of Rear Admiral George E. Dewey, the hero of Manila Bay," Batchelder reported. At that time Dewey was suffering from advanced stages of lung trouble and did not survive.

The region in the vicinity of Fort Collins settled rapidly in the seventies, and the range sheepmen were soon crowded out. The Union Colonists (New Yorkers) around Greeley were all small land holders and they were so firmly established in the ideas of "down-East" farmers that they completely enclosed the colony lands with a wire fence, forty-five miles long. Furthermore, between 1870 and 1875 they completed the first extensive and coordinated irrigation system in the state. Their fences

<sup>7</sup> *The Colorado Chieftain*, Pueblo, Colorado, July 16, 1868.

<sup>8</sup> B. Sporleger, Pamphlet 363/8, W.P.A. Manuscript.

<sup>9</sup> Steinel and Working, "History of Agriculture in Colorado," *Annual Publication*, 1926:146.

<sup>10</sup> Ansel Watrous, *History of Larimer County, Colorado*, 185-86; Also Steinel and Working, "History of Agriculture in Colorado," 146.



FIG. 78—Black sheep, used as "markers" to aid in checking western bands—one to each hundred sheep. (Belden Photo.)



FIG. 79—Just a "Black Mammy." On unsheltered grazing, one or two ewes usually remain with young lambs while their dams go to water. (Belden Photo.)



FIG. 80—Winter-feeding ewe band in Wyoming. (Belden Photo.)

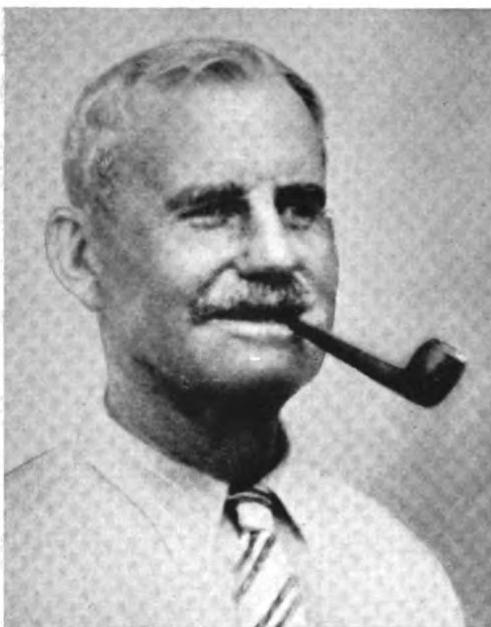


FIG. 81a—R. Brackenbury, outstanding sheep merchant and market operator (pp. 363, 445, 608).

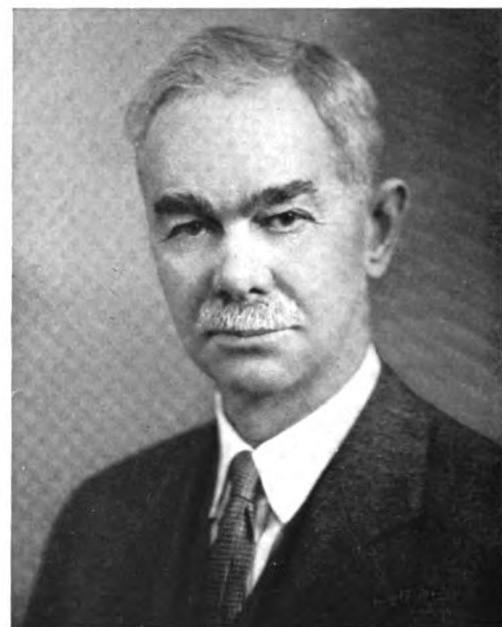


FIG. 81b—Frank M. Rothrock, Washington and Idaho flockmaster and stockyard owner (p. 399).

and ditches not only kept out the so-called "cattle barons" but provided the traditional last straw that broke the backbone of the range sheep breeding industry for that section. Captain Maynard bought land and fenced in his animals, Batchelder moved to Gebo, Montana, while others deserted the business.

#### THE SOUTH PARK

El Paso County also got the sheep fever in the early seventies. Harvey D. Ring brought a shipment of fine-wooled sheep from the East and located on the range east of Colorado Springs. Almost simultaneously the South Park was opened for grazing. Samuel Hartsel went into South Park in 1860 or 1861, seeking fattening range for work oxen bought from emigrants by Barlow and Sander-son. In 1862 he returned to Clay County, Missouri, where he purchased approximately a thousand grade Shorthorns and purebred bulls, and drove them that season to the vicinity of Rocky Ford, Colorado, where he wintered them. The following spring he took them to his ranch in South Park near the site of the modern town of Hartsel, where he gradually developed a herd of three thousand cattle. With them he drove a small band of sheep and kept a flock of one to two hundred head on his ranch to supply meat for his family and employees. By this time the Indians were no longer using South Park as a hunting ground, but Hartsel established a trading post, exchanging groceries with them for pelts.

The success of Hartsel's small band<sup>11</sup> led to the establishment of several other flocks during the eighties and nineties: Charles Wadley, with two to three thousand head, near Fairplay and Como; Chalmers and Galloway near Garo; and Joseph Rogers, who had several bands of fourteen hundred to two thousand

head each; all headquartered near Hartsel.

In the first decade of this century, George and A. R. Buckley established a few bands of sheep near Hartsel. In 1910 William Mason of Evanston, Illinois, took over the Hartsel ranch and stocked it with fifteen thousand sheep, a number maintained by the Colorado Land and Livestock Company after they acquired title. Since then Mrs. Harold Arthur of Garo and Guy Spurlock have developed fine bands, while Rufus Marshall of Hartsel has been operating on the basis of several thousand head.

#### NORTH CENTRAL COLORADO

The seventies saw the establishment of a large flock in the South Platte Valley near Julesburg. John A. Reichert of Chicago founded the Standard Sheep Company<sup>12</sup> with B. D. Parker, Sr., of Gardner, Illinois, as manager. With his three sons, B. D. Jr., C. F., and Delos, he built a two-story house twenty miles southwest of Julesburg and established a winter headquarters and range in the general vicinity. During the summer his sheep were driven as far as possible from the home range, in bands of about two thousand head. He established permanent camps for his herders, with night corrals for the sheep where they could be protected from the coyotes. In fact, nightly each herder hung a lantern in the center of his corral in order to frighten away all predatory animals. The men frequently had to bring their sheep into headquarters on account of prairie fires. On one occasion a herder dropped a match after lighting his pipe and started a fire that burned several miles into Nebraska. Homesteaders and others planned to lynch him, but the herder

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<sup>11</sup> William H. Lurtey, Hartsel, Colorado. Letter to author, August 8, 1940.

<sup>12</sup> V. V. Hargrove, Pamphlet 351, W.P.A. Manuscript.

escaped by train from Julesburg, leaving the sheep to scatter in the face of a hostile crowd.

Neither "black" nor white blizzards (dust or snow) were a novelty in those days. In one season, twelve hundred head were lost in an early snowstorm by a herder who left his band of two thousand head to call on a nearby neighbor, but was unable to get back when the storm started. Sheep were then worth from five to six dollars per head so that the loss of that number of animals represented a considerable sum. The cattle industry, however, soon drove the range sheepmen out of this region. Considerable hostility was shown, especially by cow hands working for John Iliff.

#### CATTLE-SHEEP RIVALRIES

Friction between early Colorado cattlemen and sheepmen seemed to be expressed in several ways. As the Texas trail herds swung over into eastern Colorado from Kansas they invaded ranges that had been used by Mexican herders for a number of years. In general these passing herds annoyed the sheep owners only, as the trailing cattlemen were not concerned about protecting the range for themselves. However, when some of these trail-herd owners became interested in northern range, they established themselves at various points along the eastern slopes and foothills, and came in direct competition with the flocks already established there.

In a number of cases the Mexican herders suffered severe losses, even their lives in a few instances. Texas cowmen felt a physical superiority over the smaller Mexican herder and were not slow in asserting it. The only defense the smaller man had was a rifle, and for close combat the rifle proved far inferior to the six-shooters which the cowboys favored.

Among the Americans themselves

fatalities were not so common. In some cases the conflict was confined to politics. Around Fort Collins, the mere knowledge that a candidate for office owned sheep was enough to assure his defeat. Batchelder wrote: "I soon found out that a sheepman was hated above all other men, because his sheep bit off the grass too short to suit his neighbors. Being young and ambitious at that time, I accepted the nomination as a delegate to the Constitutional Convention; (but) those awful ugly sheep defeated me at the election."<sup>13</sup>

#### NORTHWEST COLORADO

In early days sheepmen did not believe the northwestern section of Colorado was adapted to permanent establishments, though from 1890 forward there was a regular summer incursion of bands from Wyoming. Many large sheep companies were based on Rawlins, and the mountain slopes of northwestern Colorado offered most inviting summer grazing. Several of these sheepmen came in through Baggs, and grazed on the slopes above the Snake River Valley. This led to extreme competition—and agitation—among the Colorado cattlemen. Deadlines were announced across which sheepmen were not supposed to pass. The coming of the Forest Service in 1905 helped settle most range disputes, but sheep did not begin to be established in a permanent way on the western slope until 1914 or 1915. At this time the flockmasters who braved cattle opposition came from Utah, and a number of flocks moved up from the Green River country.

The milk-fat lamb industry of northwest Colorado today is based on this influx. Such lambs have attained a high reputation, making fifteen to twenty

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<sup>13</sup> Watrous, *History of Larimer County, Colorado*, 135-36.

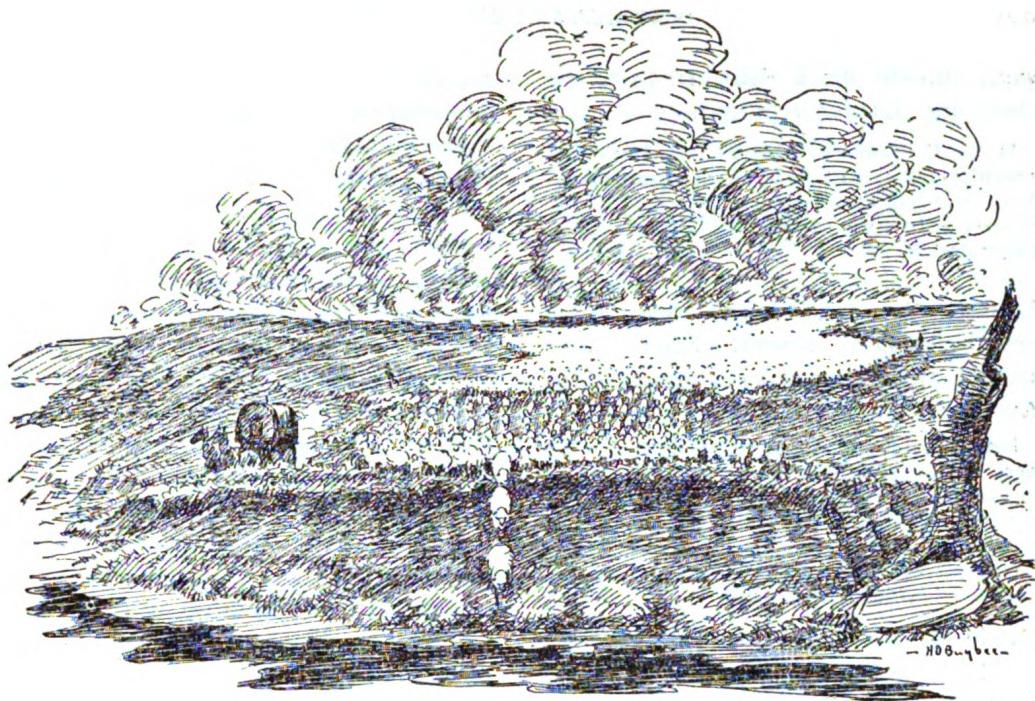


FIG. 82—Sheep fleeing a Colorado prairie fire.

pounds more weight at weaning than in nearby Wyoming and Utah. One of their leading producers, Moroni Smith, made a booster's trademark for Routt and Moffatt counties from the soot which accumulated on the fleeces while the lambs were traversing the Moffatt Tunnel en route to market. Other important growers in the development of this specialized industry were Norman and Leo Winder, Ralph Pitchforth, Isadore Bolten, Alex Urie, Lew Wyman, Ralph Reeves, and William and Paul Jensen. Mrs. Eva Fitzgerald, Dan MacIntosh, and Charles Redd operated farther south in the state. The development of this phase of the industry really followed the close of World War I.

#### SOUTH DAKOTA

The first sheep in Dakota Territory were located in the southeastern section, where a few farm flocks were established in the mid-sixties. A former governor of the Territory, Newton Edmunds, placed a flock of two thousand grade Merinos

on his farm near Yankton in 1865.<sup>14</sup> Ovine development was not rapid, however, as the post-Civil War depression in wool prices checked the spread seriously. Even by the 1870 Census there were only 1,901 animals listed—all located in the southeastern corner of the Territory.

During the next decade the development continued to be slow. In 1880 there were still but seven thousand sheep in this particular region. However, one flock of three thousand head had been based on Morris Creek, north of Mitchell, in 1879—the property of J. D. Hale.<sup>15</sup>

#### WESTERN DAKOTA RANGE

The open sheep range of the Dakotas was located west of the Missouri River and flocks moved rapidly into that area in the late seventies. The first bands

<sup>14</sup> J. S. Foster, *Outlines of the History of the Territory of Dakota*, 94.

<sup>15</sup> *The Press and Dakotian*, Yankton, South Dakota, November 24, 1879, and February 19, 1880.

went into the Black Hills. In 1876, the *Cheyenne Leader* reported:

James C. Sanders departed for Deadwood yesterday, taking with him a flock of seven hundred sheep. If the enterprise is successful, Mr. Sanders will return at once and take in a much larger flock.<sup>16</sup>

Late in the summer the sheep fever grew stronger. Several bands were started and the *Leader* announced in August:

Messrs. Ames and Appel will leave here next week with a large flock of sheep and a train of wagons loaded with goods. They propose opening a general store at Deadwood City. Mr. Ames will have charge of the sheep and train, while Mr. Appel will go ahead by stage and make the necessary business arrangements.<sup>17</sup>

Obviously the first drive was intended for food (as may have been the case with the second), but several of the bands trailed to the mining camps survived for breeding.

By 1879 William Lewis<sup>18</sup> had two thousand head on Box Elder Creek (not far from modern Rapid City), and numbers of smaller flocks were scattered throughout the area. In 1880 the activity was even greater, eight thousand head coming into the Hills from Wyoming and seven thousand from Nebraska.<sup>19</sup> A drive of seven thousand head from Wyoming alone was announced by a Cheyenne paper,<sup>20</sup> when in late January the Dissenbach brothers started that number for the Black Hills. The flock was purchased on Muddy Creek, north of the present-day city of Medicine Bow in Wyoming. The Census of 1880 showed 30,244 sheep in Dakota Territory, of which 23,143 were established in the southwestern part.<sup>21</sup>

By 1881 the *Black Hills Weekly Pioneer*<sup>22</sup> listed ten operators, each having from two thousand to six thousand head, and reported that more than eight thousand head had been brought into the region that season. However, imports would have been much greater had it not been for the severity of the

preceding winter. Deep snows, low temperatures, and lack of hay caused losses as great as 20 per cent in some bands and severe suffering for all flockmasters.

But this damage seemed minor as compared to the season of 1881-82 which was even more disastrous.<sup>23</sup> In certain sections of the Black Hills losses amounted to 50 per cent and several operators were forced from business. However, most of the sheepmen kept their courage, and in the early spring of 1884, the *Turner County Herald* (in eastern Dakota) was able to report eighty-five thousand head in the Hills, and added that two-thirds of them were in Lawrence County,<sup>24</sup> on the western slope behind Deadwood City.

#### THE BLACK HILLS

During the eighties, flocks spread north into the Belle Fourche country, despite the fact that cattle had dominated the section since the original drives from Texas. Sheep first entered this region in 1881,<sup>25</sup> and it was not long until J. D. Hale, who had operated on Morris Creek in 1879, moved over to the Sturgis country.

A real pioneer of the north Hills was Judge H. J. Grant, who trailed sheep from New Mexico and Colorado in 1881.<sup>26</sup> His first range was on the Belle Fourche River, and he made his headquarters on land where his daughter, Mrs. P. P. Vallery, had filed (about three

<sup>16</sup> *The Cheyenne Leader*, June 22, 1876.

<sup>17</sup> *Ibid.*, August 5, 1876.

<sup>18</sup> *Black Hills Weekly Pioneer*, Deadwood, South Dakota, January 1, 1882.

<sup>19</sup> Gordon, "Report on Cattle, Sheep, and Swine," *Tenth United States Census*, III, 1020-21.

<sup>20</sup> *The Cheyenne Leader*, January 23, 1880.

<sup>21</sup> Gordon, "Report on Cattle, Sheep, and Swine," *Tenth United States Census*, III, 1020-21.

<sup>22</sup> *Black Hills Weekly Pioneer*, January 1, 1882.

<sup>23</sup> *Ibid.*

<sup>24</sup> *Turner County Herald*, Parker, South Dakota, May 10, 1883.

<sup>25</sup> *Belle Fourche Bee*, Belle Fourche, South Dakota, September 4, 1941, Sec. I:12.

<sup>26</sup> *Ibid.*, April 4, 1940:6.

miles above the present site of Nisland). Gradually he utilized acreage south of the River, eight miles north of Whitewood. As the country settled more closely and range became restricted, the flocks were transferred to the Stinking Water, where operations, in conjunction with his son Arthur, continued for many years.

In 1883, John W. Caldwell established three thousand head on Hay Creek, six miles above Belle Fourche.<sup>27</sup> These sheep were shipped by rail to Pierre, ferried over the Missouri River, and then trailed across country to the Hay Creek headquarters. Caldwell filed papers on this location and erected large sheds, dipping vats, shearing pens, and all other equipment necessary for handling the bands of sheep. His grazing land at that time had no definite boundaries, extending from Willow Creek eastward to Redwater (now the western edge of the Cheyenne River Indian Reservation), while there were no limits northward or westward.

His first wool was clipped by the pioneer shearers of Sundance, Wyoming—the Hawkins brothers—and with hand shears they each turned out 100 to 125 fleeces daily. In 1890 Elmer Richards helped haul the wool to Whitewood, then the nearest railroad shipping point. He was so impressed with the opportunities for sheep that he bought the ranch headquarters and flock from Caldwell in 1902. At that time the bands were all purebred Merinos, and totaled about five thousand head.

#### CLIMATIC HAZARDS

The disastrous winter of 1886–87 struck Dakota's sheep industry hard. James Browning of Deadwood had a thousand head of sheep on the Little Missouri not far from Camp Crook and lost two-thirds of his flock. Early the preceding fall a sheep owner named Ming trailed three thousand head to

the south side of the Short Pine Hills, only to lose all of them and all of his horses. The next spring he trudged the long miles into Deadwood on foot.

Also in September, 1886, Peter McCathern trailed eighteen hundred head six miles east of Ming's bands, and four miles south of the present post office of Harding. J. M. Ward was with McCathern, and the two men put up some hay. Snow came on October ninth, and lasted into the following April. On January twelfth their one-room dugout was buried under the snow, nearly suffocating them from the smoke of their fire.

Luckily we had brought our shovels indoors the night before, so we were able to shovel the snow inside, and make a tunnel outside which we covered with poles and hay, and kept a passage like that all winter long. That was the worst winter I ever put in. Snow was 18 inches deep on the level. We had to use four horses on the snow plow, and then cut two big cottonwood logs, twelve inches by fifteen feet, to weight the snow plow in order to break the crust.<sup>28</sup>

Aspen trees were plentiful, and by cutting them down and letting the sheep eat the bark and limbs, the men managed to pull half of their flock through the winter.

#### CHIESMAN AND WARD

In September, 1887, McCathern leased his flock to Ward and his brother-in-law, William J. Chiesman, in exchange for a sawmill. Chiesman built a corral, enclosed the sheep, and counted them. The flock was supposed to include 400 head, but there proved to be 930. McCathern had feared that, if he told Chiesman how many there actually were, the latter would call off the transaction. Chiesman and Ward kept this flock in the same location for two years, but on the day that they were to break the lease with McCathern, the latter failed to show up. They then learned that he had died, so John Cashner, of Spearfish, was

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<sup>27</sup> *Belle Fourche Bee*, April 4, 1940:6.

<sup>28</sup> J. M. Ward, Letter to author, June 27, 1945.

appointed administrator and the lease was turned in to him.

Chiesman and Ward bought all the lambs, adjusted the balance due McCathern, and continued to run them at the same location, where Ward "homesteaded" a headquarters. The flock was built up to forty-five hundred head, which were too many for one band, hence they were divided evenly between the two partners. Ward kept the range on Ash Coulee, and Chiesman the range on Cowboy Creek. After two years the sheep were fat and shipped to Omaha.

During the time Chiesman and I were in partnership, the Indian uprising under Sitting Bull occurred. Willard Patton and I went into Camp Crook where we met soldiers and Crow Indians. But I went on out to where the sheep were, about fifteen miles distant, as I was afraid the herder might leave the sheep. He assured me he would not leave as long as he had enough ammunition, so I gave him plenty of cartridges. The Indians didn't get very far before being cornered, after which Sitting Bull was killed. This happened around Grand River . . . which was practically unsettled at that time. He only got seventy-five miles from the Reservation before being cornered in a deserted cabin where the Indian police killed him. My information came from horseback riders spreading the news. . . . Later I went into the sheep business with my brother, W. D. Ward. We leased fourteen hundred ewes from Charles Boles, but during a bad storm in May, we lost half of the lambs—so sold what was left, back to Boles. . . . Charlie Boles was one of the biggest sheep men of that time, having ten thousand head on a big range, twenty to twenty-five miles north of us in the Jump Off Country and on the Little Missouri. He was in the business the same years that I was, but sold out and went to Belle Fourche.<sup>29</sup>

According to the Butte County assessor's records the year 1892 showed the first sheep, totaling 2,438 head. The largest flocks were those of David Millett with 1,140 animals, and Chiesman and Ward with 1,000 head. Throughout the nineties this latter flock fluctuated in numbers between three and eight thousand. The pair also fed a large number of wethers and lambs in the irrigated districts around Belle Fourche. Irrigation had to precede sheep feeding in this region.

The blood in this flock is of interest. Founded on a New Mexican base, Chiesman added Cotswold blood in 1888. These bucks were purchased from a breeder named Gardiner, near Ekalaka, Montana, and added considerably to the body and fleece weight in the flock. A good, horned Rambouillet ram was purchased at the World's Fair in Chicago in 1893, and mated to the best ewes in the flock to produce field rams. Later in the nineties some large, smooth-bodied Delaine rams were introduced. In the course of ten years the yield of wool doubled, increasing from three to six pounds per head. The Chiesman and Ward flock survives today under the management of "Lev" Chiesman, with headquarters at Newell.

#### THE SOUTH "HILLS"

Most of the cattle operators who had dominated the country north and west of the Black Hills, especially in the Edgemont region, found themselves in such financial difficulty after the winter of 1886–87 that they could not recover, and sheepmen gradually pushed out over the western Dakota ranges. The majority of the early bunches of sheep trailed into this region came from New Mexico, with short stopovers in Wyoming. The animals were small, showing red hair on their faces and legs, and coarse fibers all over the thighs. They sheared three pounds per fleece on the average, and ewe and wether bands always contained a few bucks of a similar quality.<sup>30</sup>

In the southern part of the Hills, one of the most venturesome sheepmen, following the debacle of 1886–87, was Jacob Mills. In the early nineties, he located a band on French Creek in the eastern part of the Hills, close to the town of Fairburn. Near him the next

<sup>29</sup> Ward, Letter, June 27, 1945.

<sup>30</sup> L. E. Chiesman, Newell, South Dakota. Letter to author, February 26, 1944.

season was Horace Crawford, but the latter felt opportunities were better on the other side of the Hills and soon moved to Alkali Creek, northwest of Edgemont, stretching across the Wyoming line. Later Mills felt the same urge, and located on Sage Creek, Wyoming. He established his headquarters near Hat Creek Store and developed extensive operations.<sup>31</sup>

In the later nineties a few sheepmen pushed up south of the Hills from the vicinity of Crawford, Nebraska, maintaining their headquarters at the latter point. Three of the ranches then established are still in operation—those of T. P. Moody, F. T. Golden, and Darrow and Schofield. Each now is under the management of a son. Another outfit that ranged in South Dakota but that maintained its headquarters on the headwaters of White River, between Crawford and Harrison, Nebraska, was that of Hall and Cawell. This became one of the leading flocks of the vicinity. When LeRoy Hall and David Cawell retired after the first World War, the former's son, Frank, began using higher quality rams and expanded the operations.

T. P. Creek was also considered good sheep range. McCouvery Brothers drifted a band there in the late nineties, sold out to "Hough" Houghton after a few years, and established new flocks on Beaver Creek, northwest of Edgemont. Houghton continued a flock on T. P. Creek and after his death his son, Mack, carried on the breeding.

East of the Hills, Nat Dryden based a flock on Lone Well Creek near Oelrichs. The western bank of the Cheyenne River had two large flocks, those of Owen Shay and of the N. S. Tubbs Sheep Company. The latter two operations were extensive and important during the first two decades of the twentieth century.

Moody describes the sheep of South Dakota of that period rather clearly:

In those days you would find sheep with bare legs and about two-thirds of them (with) bare bellies. Their wool was of a hairy nature; if they sheared five pounds of wool it was considered a good clip. Also if a lamb weighed forty pounds it was a top lamb. In a great many instances the wether lambs were run for their wool only.<sup>32</sup>

Conditions were rather primitive on the early Dakota sheep ranches. In some cases the owners had built sod cabins, but many had none. Moody comments:

It was not unusual to find sheepmen and their families living in sheep wagons in the long cold winter months and enduring many hardships, as the blizzards came sweeping down across the plains, accompanied by snow and sleet covering the prairie grass, the only forage their sheep had to eat.<sup>33</sup>

#### BLACK HILLS WOOL MARKETING

After 1890 a large number of the sheep trailed into the Black Hills came from Colorado, southern Wyoming, and Montana. Wool was hauled to Dickinson, North Dakota, on the Northern Pacific Railroad, from the north side of the Black Hills, and to the Fremont, Elkhorn and Missouri Valley on the south side. After the town of Belle Fourche was started, when the Chicago and Northwestern Railway was built, the principal wool market in the Hills was located there. Wethers were kept until they were three or four years old, and were sold to the Deadwood butchers. Many of the miners in the Hills were of British descent, and were good customers for dressed mutton.

The largest sheep outfit to be operated in the nineties was that of Ganz and Kline. Louis Ganz and Louis Kline were trail drivers who purchased sheep each spring in New Mexico, trailed them leisurely into Montana, and sold them

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<sup>31</sup> Thomas Moody, Crawford, Nebraska. Address before Western South Dakota Wool Growers' Association, Edgemont, South Dakota, May, 1942.

<sup>32</sup> *Ibid.*

<sup>33</sup> *Ibid.*

ahead of the breeding season. Their office headquarters were in Butte, but they apparently had no permanent range in Montana. On one occasion an early winter caught several of their trail herds en route and they were forced to camp on the headwaters of Indian Creek, not far from Hermosa. The location proved very suitable and they built up a ranch known as the Old Box X on which they ran a flock totaling about twenty thousand head, divided into seven or eight bands of about twenty-five hundred head each.

#### DAKOTA CATTLE DISPUTES

Friction with the cattlemen reached its peak in the mid-nineties. The range at that time was occupied mostly by cattlemen originating in Texas, and they did not think much of the sheepmen. The reason behind the situation was the same—the age-old conflict for grass—but the sheepman enjoyed many quiet asides on the subject. Moody relates:

They also had cattlemen to contend with, who said they didn't like the smell of sheep, which "polluted the waterholes and ate up the grass." But many a sheepman had a good laugh by himself when he observed that nearly all of the cattlemen wore woolen underwear, woolen shirts, and sheep-skin lined coats. Time passed and wonderful changes have occurred. Very frequently cattle and sheep may be seen drinking from the same waterhole or grazing contentedly side by side. Many of the big cattlemen became big sheepmen and are now willing to carry that smell.\*

Yet trouble with cattlemen during the nineties was not as serious as in other regions, and the larger sheep and cattle outfits had very little trouble. There were far greater range difficulties between the *large* cattle companies and the *small* cattlemen, or the nesters, starting up small ranches. A minor amount of agitation developed when flocks first entered the Slim Buttes section in the rough breaks near North Moreau Creek in

Harding County. The pioneer sheep owner there was Charles Cooper, a slight man past middle age who took a few hundred ewes into the country east of the south end of Slim Buttes. Setting up his tent and keeping the rest of his equipment close at hand, he stuck closely to his business of herding. But cattlemen were soon whispering the old excuses preliminary to running a band out—"If we let one stay others will come" or "sheep will eat out grass roots and leave nothing for our cattle," or "the sheep stink will drive the cattle from the range and the water holes." Very little was required to stir up drastic action among the more hot-headed cattle owners.

Fortunately a few of the stockmen had respect for all kinds of livestock as animals, and the idea of killing or maiming them did not appeal to their sense of decency and fair play. Furthermore, they were intelligent enough to know that they held no title to the range they used and Cooper had as much right there as they did. So the threats and mutterings gradually quieted, and the cattlemen discovered that neither Cooper nor his sheep bothered them—there was room for all. Soon the fact that a flock brought two sources of income annually, the lamb and the fleece, led a few cattlemen to experiment. Shamefacedly they told their cattle friends that sheep took less feed than cattle and gave quicker returns. Sheep then began to cover northwestern South Dakota.

The Census of 1890 was taken after Dakota had been split into two territories, and South Dakota was listed with 238,448 sheep. By 1900 the number had increased to 775,236, and the coverage of the western part of the region characteristic of the present day had been pretty well attained. The chief sheep operations were conducted in the northwest corner

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\* Moody, Address, May, 1942.

of the state in Butte, Harding, and Perkins counties. For the next twenty years numbers fluctuated only slightly. But as the feeding sections in the southeastern part of the state began to develop, and hogs, sheep, and general livestock increased after the first World War, the numbers ran up rapidly. The 1930 Census showed 1,150,346 head, and 1940 Census recorded an increase to 1,370,201 animals.

#### NORTH DAKOTA

Sheep began to enter North Dakota in the early eighties, the source of most of the drives being from Wyoming. Only the western part settled first, and nearly all owners had relatively large bands. Some sheep were dropped off by Montana flockmasters headed for market, but it was in the late eighties when this happened. Pioneer settlers brought Wyoming sheep. Dugald Campbell wrote:

I took up a homestead and tree claim in North Dakota in the spring of 1882, the land to the south and east being unsurveyed. The region on the western side of the Missouri then belonged to the Indian and the buffalo. . . . I camped in my covered wagon beside some twenty thousand square miles of unoccupied land. . . . A few herds of cattle were soon roaming over the prairies. . . . That fall I went to Montana to try to buy a small flock of sheep, but they could not be bought there for a king's ransom. The next season I drove through the Sioux Indian Reservation and the Black Hills to southern Wyoming and bought a flock of sheep from Francis E. Warren. It was a season's work for a young Scotch lad and myself to graze those sheep over six hundred miles to their destination, and between lack of water, fear of prairie fires, of sudden storms and Indians, it was a long, anxious summer.<sup>35</sup>

Campbell lost only seven sheep en route and all were fat and thrifty on arrival. He said:

Those Wyoming sheep were not *driven* the six hundred miles. They were grazed along and kept headed in the desired direction, all the time aiming to make them feel that they were going that way of their own accord. That is one of the main secrets of sheep herding on the plains.<sup>36</sup>

Many of the sheep herders in the North Dakota of that day were young Scotch lads. The yearly pay of more than three times as much money as they could get at home was part of the attraction, but the main lure was that they could take up good grazing and farming land and in five years be proprietors themselves. At the end of a few seasons practically all of them had stock of their own and ample acreage. Several of them became quite wealthy and able to buy over and over again the holdings of the farmers for whom they had formerly worked in Scotland. However, all these Scotchmen hated the monotony of sheep herding. Geordie MacPherson was quoted as saying:

Weel, if I dee sheep-herding, it'll have to be pretty soon and damned accidentally.<sup>37</sup>

The first "Mexican Merino" sheep in North Dakota were usually crossed with Shropshires by their Scotch owners, and the first cross was a good general purpose animal. But the second or third cross animals were impossible, for they would wear out the herder and his dogs to keep them together. As these herders used to say, "they were wandering cusses," and the crosses from Shropshires, Lincolns, and Cotswolds would "strike out, each in his own way, just like the Anglo-Saxon people that had them first."<sup>38</sup>

"The Merinos would stay together unless panic-stricken by a wolf. They were easy to handle and would follow a leader, even if the leader were only a billy-goat with a bell. In their sociability, they resemble the Spanish people who,

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<sup>35</sup> Dugald Campbell, *Sheep and Shepherds—Here and Elsewhere*, MSS. in the Library, State Historical Society of Wisconsin, of address delivered before the "Round Table," Eugene, Oregon, January 11, 1916, 35-36.

<sup>36</sup> *Ibid.*, 39.

<sup>37</sup> *Ibid.*, 49.

<sup>38</sup> *Ibid.*, 57.

for more than a thousand years, had bred them for docility in handling and for fineness of wool."<sup>39</sup>

So long as the owner of the camp or his foreman knew how to handle sheep, no special aptitude was required of the herder. (All that was necessary for him was) simply to be a constant scarecrow and keep the wolves away; to guide the sheep to water before noon; and to get them back to camp before dark. The camp tender attended to the changing of camp and to provisions for the herder and his dogs, as well as salt for the flock.<sup>40</sup>

But the hours were long. "Mine was the night watch and lying down beside them I could sleep as long as they snored, coughed, and sneezed beside me. But if, by any chance, they would get up and silently steal away, the unwonted stillness would wake me up, and Laddie, the Scotch collie, would gather them up."<sup>41</sup>

Wolves were a problem in early North Dakota. Dugald Campbell had a Norwegian herder, John Halin, whose horse fell on him and broke his leg. The horse and the sheep got away, but in the evening the camp tender found him, helped him into the buggy, and they followed the sheep. About a mile from camp the wolves had attacked and the trail was marked by dead and wounded sheep. They were found bedded down close to a winter shed, but about seventy head had been killed outright, and a great many more badly torn.

#### THE BAD LANDS

In 1883 a French nobleman, Antoine de Vallombrose, the Marquis de Morés, ran about twelve thousand sheep on shares with residents of the Bad Lands.<sup>42</sup> The sheep were incidental to his plan of establishing a packing house in the midst of the livestock country, so as to lower distributing costs by moving only the edible portion, the hides, and other useful by-products, out of the area where they were produced. At the town of

Medora (named for his beautiful and wealthy wife, Medora von Hoffmann, of New York City) he erected the plant near the newly completed Northern Pacific railway station, and built a magnificent chateau (still a local monument) on the crest of a hill overlooking the dry washes of the Bad Lands. This became his headquarters during the three years he was a resident of the region.<sup>43</sup>

In addition to having sheep in a cattle country he "crossed the grain" of the early settlers for other reasons. Many of them doubted the authenticity of his title and felt that he was using it to break the tradition of equality that was the early social standard of ranch communities. In the second place he represented a standard of wealth far beyond anything possessed by other settlers and aroused the enmity of the "have-nots." Third, he fenced several thousand acres of land at a time when the rest of the range was open-land—possession of which he had secured through scrip—and that was an unforgivable sin in the community.

Fourth, the cattle-rustling element took shelter in part of the Bad Lands near the Marquis and fraternized too much with the Marquis's hands to make him real popular with the so-called "decent ranchers." Finally, he participated in a dispute with Theodore Roosevelt, when the latter was a cattleman of the Bad Lands. This led so nearly to a duel that most of western North Dakota had to take sides on the question.

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<sup>39</sup> Campbell, *Sheep and Shepherds—Here and Elsewhere*, 58.

<sup>40</sup> *Ibid.*, 46.

<sup>41</sup> *Ibid.*, 27.

<sup>42</sup> Herman Hagedorn, *Roosevelt in the Badlands*, 68.

<sup>43</sup> Usher L. Burdick, *The Marquis de Mores at War in the Badlands*, 7.

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Hence the slow development of sheep in western North Dakota was so tangled in other issues that it could not be established whether they were economically and climatically adapted. At any rate, tradition says that half of his sheep were too old and toothless to survive the first winter, and many of them died of hunger. Besides several of his partners seemed more interested in what they could wring from the Marquis than in what they could earn from the sheep.<sup>44</sup>

#### STABILIZING THE INDUSTRY

Sheep increased in numbers in North Dakota in the latter eighties when the species demonstrated quicker recuperative powers than cattle. But the western part of the state was naturally better adapted to cattle than to sheep, and in 1890 only 136,413 head of sheep were reported in the Census. During the eighties and early nineties numerous promoters operated in North Dakota, buying sheep in Montana and reselling them at high prices or putting them out on shares. These were handled in lots of fifty to five hundred head and were placed with farmers rather than ranchers. Under the share contract the farmer received half the wool and half the increase, but since he had to return the original number leased he stood all the risks and death losses. In 1890 more than twenty thousand sheep were brought in by promoters. Sheep sold at one and a half to twice the Montana price, and interest on the unpaid balances ranged from 10 to 12 per cent for periods of three to five years.<sup>45</sup>

By 1900 the situation had changed. Nearly 682,000 head were in the Territory, and a big business had developed in the wheat farming areas of grazing sheep on the stubble after harvest and then marketing them fat in the autumn.

Both Montana and western North Dakota contributed to the movement, and the Red River Valley teemed with fattening wethers and lambs each fall. As early as 1890 William Rae of Montana was wheat-feeding lambs in lots of a thousand head each, and he continued the practice for twenty years. The Census of 1900 indicated that average fleece weights for North Dakota totaled six and a half pounds.

In the early part of the present century the sheep population dropped to under a third of a million head for two decades; then the big feeding industry of the eastern part of the state and the farm flock programs of the twenties and thirties carried the numbers back to 825,000 or 850,000 head for each census. But this was a phase of the feeding industry and not the range industry. It was stimulated by the purchase of the packing house at Fargo by a national packer,<sup>46</sup> plus the joint efforts of railroads, bankers, and a state-wide business men's organization.

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The last of the western states to become established with sheep were Colorado and the Dakotas. Like Kansas and Nebraska, the Dakotas developed farm flocks in the east and range flocks in the west. Colorado was the true meeting point of sheep cultures—the Spanish *churros* coming in from the South, the purebreds arriving from the East, and the basic modern flocks trailing from the West. Sheep husbandry in the plains and foothills states was more mixed in character than in any of the older sheep commonwealths.

<sup>44</sup> Hagedorn, *Roosevelt in the Badlands*, 69.

<sup>45</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 735-36.

<sup>46</sup> Armour and Company.

*Come, fu' up yon bunkie, the hoggs we maun feed!  
Wi' neeps, hay an' ilecake, we'll furbish the breed!  
The fleshers are ca'in' for muttons they need  
An' meat they maun hae ilka morn!  
So wee bits o' beasties, come fu' up your painch  
Creesh doon your back-bane an' swell oot your hainch  
'Tis Caledon's mutton that rears her sons stainch  
An' tae nouriss them we' ye were born.*

—Old Scottish Verse

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## The Commercial Feeding Industry

AS THE intermountain country became covered with sheep, the older farming states found it increasingly difficult to compete in supplying mutton and lamb. The mountain regions could grow sheep at considerably less cost than the Midwest, but they lacked the feed-stuffs to fatten wethers and ewes for the winter market. For three decades, the problem of providing dressed lamb and mutton for winter consumption proved quite critical. The East could not afford to rear the lambs locally, and the West was unable to raise the necessary fattening rations. Wool growers in the high plains area shared with range cattlemen the distaste for cultivating crops and conducting general farm operations. Hence the first attempt toward necessary supply was found in the great trail movements to Nebraska, Kansas, and Colorado where fattening feeds could be grown.

The loss of position by the East in furnishing fed wethers and lambs can be measured roughly through statistics of the Chicago market. During the first three months of 1880, before eastern feeding declined, the sheep marketed constituted 32.2 per cent of the annual receipts. In 1890, the percentage for the first quarter had dropped to 23.3, with practically no change in 1900, when the figure was 23.9. By 1910 the East had

practically abandoned feeding and the West had adopted the ewe-and-lamb basis of operation. Only 14.8 per cent of the year's sheep receipts at Chicago came in the first quarter. This represented the low point. As the feeding in the West grew, and some recovery took place in the East, the winter proportion of marketings increased. In 1920, it was 19.9; in 1930 it was 23.9, the proportion which characterized the opening of the century; and in 1940 it was 29.7 per cent.

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The sheep-feeding industry grew rapidly beginning after the Civil War. Government estimates<sup>1</sup> show the number of sheep on feed annually since 1867, and from the low average of 1,217,000 head during the decade 1871-80, the numbers had increased to 5,720,000 head

<sup>1</sup> *Livestock on Farms, January 1, 1867-1919*, 27, supplemented by data from *Live Stock Meats and Wool Market Statistics and Related Data, 1941*, 10. By periods the estimates averaged as follows:

**SHEEP AND LAMBS ON FEED,  
JANUARY FIRST**

Period	Average Number
1867-70 .....	1,270,000
1871-80 .....	1,217,000
1881-90 .....	1,780,000
1891-1900 .....	2,654,000
1901-10 .....	3,353,000
1911-20 .....	4,010,000
1921-30 .....	4,362,000
1931-40 .....	5,720,000

for the decade 1931-40. This came as a steady growth, characterized by a marketing of the fed lambs over a longer period of the year. Today the fed lamb period runs from mid-November into late May. The supply of eastern-fed animals, and those run on western wheat-fields, tapers out about the last week of January. The western feedlot lambs come from late January into May, or rarely into early June. During the boom period, preceding 1929, western lamb feeding formed a larger proportion of the receipts than previously, and after 1930 the eastern feeding began to pick up again.

One reason for the decline of the East in sheep feeding between 1890 and 1910 was the rise in land values and relative costs of operation. More shelter against storms, wind, and cold was required east of the Missouri River than west of it. In the West all feeding could be done in the open, the air was bracing, the rainfall light, the snow usually dry, and a high percentage of the winter days were sunshiny. Windbreaks were constructed where there was danger of driving storms from the north, providing there was no other shelter available. Self-feeder hay racks were used by most of the commercial operators.

#### EARLY NEBRASKA FEEDING AREAS

The natural area for feeding sheep, when conditions shifted from the East to the West, was in the Platte River Valley in central Nebraska. Less extensive operations developed later in the Loup River Valley as well as the Kansas and Arkansas river valleys of Kansas. The districts were practically virgin, the great emigrant movements having done little to disturb the soil. In the late seventies when a party had traversed 125 miles of Platte River bottoms, it was on the prairie, in the heart of a grazing paradise. The lure was further enhanced

as the plow turned back the fertile cover, and the fields bulged with growing corn.

Sheep feeding in Nebraska started in 1877 or 1878, near Gibbon in Buffalo County, when a Dr. George<sup>2</sup> trailed and shipped from New Mexico a small band of sheep and fed them for market during the winter.<sup>3</sup> In extreme eastern Nebraska, the activity was well under way near Fremont, in Dodge County, in 1879.<sup>4</sup> In the ensuing decade several Wyoming sheepmen (Noble and Bragg of Lander, and Joel J. Hurt of Casper) fed there regularly.

The fall of 1884 saw the great burst. E. W. Ormsby<sup>5</sup> trailed the first sheep from the west to Central City—thirty-five hundred head—and on September 22, James A. Moore of Cheyenne brought two thousand yearling wethers into feed-lots which he established at Gibbon. On December 15, George Cherrington shipped two thousand more there for the account of another Wyoming owner.

Feeding preparations were simple. A man named Taylor that same winter bought from Marshall Ross's father twenty-five acres of corn in the field at twenty-five cents a bushel, to be fed there.<sup>6</sup> Both acreage and yield were estimated but errors in requirements

<sup>2</sup> Brother of A. D. George, a long-time resident of Gibbon, Nebraska.

<sup>3</sup> W. Marshall Ross, Gibbon, Nebraska. Letter to author, August 27, 1938. Ross arrived in Gibbon as a child, March 1, 1884, with his family. He first saw sheep shipped into Gibbon for winter feeding the next fall.

<sup>4</sup> G. W. Hervey, *The Twentieth Century Farmer*, Omaha, Nebraska, April 5, 1911, 4.

<sup>5</sup> E. W. Ormsby and his son, L. L. Ormsby were discussed in Chapter 13.

<sup>6</sup> Ross, Letter, August 27, 1938. The first lamb that Ross owned was dropped by a ewe, that strayed into this flock, which suffered a broken leg. Young Ross reported that discovery to the foreman, who presented it to him, thereby avoiding the possibility of a "bummer" lamb around Taylor headquarters. The leg healed and it finally became full grown and ready for the block. A neighbor purchased it for slaughter for the princely sum of "two dollars" (his price).

caused the sheep to be moved ten miles northwest of Gibbon for finishing. Ear corn was purchased in that vicinity and spread on the ground over the open prairie. These sheep had no hay racks, and were corralled in a large yard at night. Roughage was picked up during the day when they grazed the prairie or ranged through the cornstalks, consuming the leaves.

In the fall of 1885 sheep for feeding came into the Gibbon country in great numbers—A. T. Webber handling sixty-one hundred head; Thomas Dyer, forty-five hundred; the Warren Livestock Company of Cheyenne, Wyoming, forty-five hundred; James A. Moore, twenty-four hundred; J. H. Hedges, twenty-four hundred; and George Cherrington, two thousand. E. W. Ormsby trailed two bands of seven to eight thousand head each to Central City that fall. The feeding enterprise was securely launched, although no large band was fed again until December of 1887, when J. A. Rathbun took six thousand head to feedlots near Gibbon.<sup>7</sup>

In 1886 E. M. Gibson commenced sheep feeding at Clark's, Nebraska, and Alex MacQueen started at Silver Creek. Ormsby had difficulty in getting East through the new settlements with his trail flocks, and had to load them on the Union Pacific at O'Fallon's, west of North Platte, repeating the experience in 1887. Other feeders and dates of starting were:

- 1886—L. P. Southworth, at Shelton
- 1887—J. C. Fordyce and Son, at Central City
- 1891—Robert Taylor, at Abbott<sup>8</sup>
- 1893—T. G. Ingraham, E. H. Wickham, and A. Gardner at Central City and Archer; Oswald Brothers at Wood River; F. P. Sheean at Aurora
- 1894—Charles Reed of the Platte Valley Sheep Company at Fremont
- 1895—J. J. Hurt of Wyoming, Becker and Degan, Mike Thell, and H. C. Glissman at Omaha
- 1897—Lehmer Brothers and John Rapp at Omaha

The Warren undertaking preserved some definite data.<sup>9</sup> In November, 1885, Francis E. Warren, the president, obtained a six months' loan of ten thousand dollars from Joseph H. Gray of Boston, with interest at 8 per cent. He reported to his Board of Directors the intention of purchasing corn and hay in Nebraska with which to feed sheep raised on their Wyoming ranch, and pointed out that the animals could be turned for mutton before the note came due. The ranch manager, W. W. Gleason, stated that he shipped between four and five thousand sheep to Gibbon, and engaged enough hay at three dollars per ton to last the entire winter. He also commissioned J. A. Moore to purchase twenty thousand bushels of corn at fifteen cents per bushel. A few thousand bushels had already been obtained at that figure, and the feedlot bins were full. The Union Pacific granted them a rate of thirty dollars per car, Cheyenne to Gibbon, and promised a special rate of not more than seventy dollars per car to continue on to Chicago after fattening.

At the Board meeting of April 8, 1886, some of the results were reported.<sup>10</sup> On

<sup>7</sup> Ross, Letter, August 27, 1938.

<sup>8</sup> Taylor's operations developed rapidly and in five years he was feeding nineteen thousand head, all of his own raising, from his FL, YU, and Bitter Creek ranches in Wyoming. Corn cost only ten cents for seventy-five-pound bushels at Abbott in 1895-96, and prairie and alfalfa hay were available in profusion. Taylor had a thirty thousand bushel elevator, a corn sheller and a feed grinder. Hand feeding troughs were used at first but he gradually changed to self-feeders. In 1896 about forty-five hundred of his lambs were exported to Glasgow, in three lots of fifteen hundred head each.

<sup>9</sup> *Minute Book, Board Meeting, December 12, 1885.* The President, Francis E. Warren, was one of the two first senators from Wyoming and served until his death. He was President of the National Wool Growers' Association for many years, and moved the office of that association to the West. During his service in the Senate, he was directly or indirectly responsible for most of the legislation promoting the welfare of the sheep industry, including tariff protection.

<sup>10</sup> See Statistical Appendix No. 2.

March 3, fifteen cars, mostly old wethers averaging ninety-eight pounds in weight, were shipped to Chicago where they netted \$6,256.34, or \$4.42 per head. Two weeks later eleven cars, mostly old ewes, were shipped, with an average weight per head of eighty-seven pounds and an average net price of \$3.12, the total net being \$3,363.20. The two transactions involved \$9,619.54, nearly the principal of the note. Only 2,583 sheep had been shipped, and there still remained nearly two thousand head to cover the balance, the value of the forty-five hundred head at the ranch, and the interest payments.

In the fall of 1886 the Warren Company shipped thirty-three carloads to Gibbon and twenty-eight carloads to some feedyards the Company established at Schuyler.<sup>11</sup> The gross returns for the season were \$27,886 at Gibbon, and \$21,668 at Schuyler, a total of \$49,554 which netted \$2.13 per head on 11,885 sheep. Hence the Board voted, on August 11, 1887, to purchase forty acres at Duncan, Nebraska, for a company feed yard, authorizing the necessary sheds, fences, and other equipment. On June 7, 1888, Gleason reported that the previous winter they had fed 11,299 sheep on which they netted \$2.56 per head (interest and taxes not included) or, if they included death losses on 297 additional head which had been shipped from Wyoming, the season's venture netted them \$2.30 per head.

Each year after 1886 new feeding operations were initiated in the Valley, until nearly every city from Fremont west to Kearney had sheep-lots of considerable size in addition to extensive cattle feeding operations. By 1889 the movement included large numbers. Franklin Hershey of Gibbon had come out from Chicago in 1887 after operating six years in the stockyards. One branch of his family was noted as chocolate

manufacturers in Pennsylvania, but the interests of both his father and himself lay in livestock. In 1887 he entered partnership with E. Boettcher, also of Chicago, who later fed at Fremont, and the two partners trailed twenty thousand wethers to Gibbon from Oregon, for feeding during the winter of 1889-90. On Hershey's farm<sup>12</sup> modern feedyards were constructed, and the characteristics of the present sheep-feeding establishment began to emerge.

Also in 1889, C. D. Hudson trailed ten thousand sheep to Gibbon from New Mexico. He continued this type of operation for about four years, and then moved farther east. Practically all the sheep in the Platte Valley at that time were fattened on corn and prairie hay, by methods which would now be considered inefficient and expensive. The feeding period was long, the waste of corn kernels on the open prairie was tremendous, and death losses were high. Not until 1900 did alfalfa become plentiful enough to constitute a standard roughage.

A variant method of feeding ewes in fenced cornfields was tried occasionally throughout the late eighties and early nineties, but was not widely adopted until 1898, when R. A. Templeton of Tekamah standardized a system for using the customary eighty acre cornfields as units. This was very popular for many years as an economical method of converting corn into mutton.<sup>13</sup>

#### LOUP RIVER VALLEY

In 1889 feeding began in the South Loup River Valley near Ravenna and Cairo, directly west of Grand Island. L. P. Southworth, who had been feeding

<sup>11</sup> *Minute Book*, June 27, 1887.

<sup>12</sup> Now owned by W. Marshall Ross.

<sup>13</sup> B. M. Roberts, Traffic Manager (retired), Union Stock Yards Company, Omaha, Nebraska. Letter to author, January 25, 1939.

at Shelton, east of Gibbon, moved north over the divide between the two streams, largely because the influx of sheep into the Platte Valley had placed a premium on local corn prices above those of Omaha.<sup>14</sup> At Ravenna in 1890, Southworth fed ten thousand head of yearlings and wethers, increasing his numbers annually until in 1896 he fed twenty-six thousand head at Ravenna and five thousand at Cairo. He continued to feed fifteen to twenty thousand head annually until 1902, when he cleaned up his yards and quit the business.

The Loup Valley never yielded alfalfa as abundantly as the Platte, but J. A. Mawhinney and Sons carried on in the Loup Valley annually with two to four thousand head. They held irrigated land in the Platte Valley, however, between Gibbon and Kearney, and based their operations on both holdings. The trend from the nineties onward in both valleys was toward a breaking into smaller units, ranging from two carloads to eight or ten double decks.

#### CLOSE OF THE CENTURY

By 1892 the growth in Dodge County above Fremont had pushed to more than two hundred thousand sheep in the feed-yards. During the next year Nebraska sheep feeders finished more than a hundred thousand head, but the drouth and crop failure of 1894 wiped out many operators. Although numerous individuals fell, the industry was vigorous. When 1895 brought a 125,000,000 bushel corn crop for the state, the feeding industry promptly returned to a basis of three hundred thousand sheep. By 1897 more than one million sheep were finished, distributed all over the corn growing sections of the state, in lots ranging from a few hundred to thirty thousand head under individual feeding ownership.

During the two decades in which the

business had been developing some outstanding figures arose, especially Peter Jansen, T. B. Hord, and the Swift-Knollin interests.

Jansen<sup>15</sup> operated in southeastern Nebraska near Beatrice. In his heyday he handled from fifteen to thirty thousand sheep annually in his feedlots. Although he started sheep breeding in 1876, he did not begin feeding for market until the early eighties. His influence was most important among his fellow Mennonites, but his natural leadership brought him to dominate the state sheep industry for forty years, 1880–1920. During much of that time he was president of the Nebraska State Wool Growers' Association.

The second outstanding figure was T. B. Hord of Central City.<sup>16</sup> Beginning with a cattle ranch in Wyoming in 1880, he established a feedlot at Central City four years later.<sup>17</sup> From this beginning he increased his investment and widened his feeding facilities rapidly until he operated eleven feeding stations. Each of these was independent of the others in local management. All improvements, such as buildings, cribs, fences, hayracks, and feed bunks, were of substantial structure. Annually in the spring, each feedlot was plowed up and every foot of the ground was planted with corn which was thoroughly tilled. Not only did this purify the top soil, but each year's corn was fed to a new bunch of sheep or cattle on ground free from all filth or infection that could militate against their rapid finish.

His original sheep feedyard comprised about forty acres and was laid off in blocks—with streets and alleys to accommodate the efficient and separate hand-

<sup>14</sup> Ross, Letter, August 27, 1938.

<sup>15</sup> See Biographical Appendix, Peter Jansen.

<sup>16</sup> See Biographical Appendix, T. B. Hord.

<sup>17</sup> *Omaha (Nebraska) World-Herald*, February 11, 1900, Part III, 24.



FIG. 83—The herder's wagon on the background as sheep are rousing for early morning grazing (p. 404). (Belden Photo.)



FIG. 84—Arizona herder's equipment with pack burros—a trail flock in the Mogollons en route to the White Mountains (p. 404). (Esther Henderson Photo.)



FIG. 85—Sheep dog working ewes and lambs in corral. (Belden Photo.)



FIG. 86—Imported "Glen" No. 3364—typical sheep dog bred by J. M. Wilson, Whitehope, Inverleithen, Scotland, and owned by D. S. Bell, Wooster, Ohio, secretary-treasurer of the North American Sheep Dog Society (p. 407).

ling of numerous lots of sheep. From three to five bushels of corn were fed daily for each hundred sheep, varying with the size of the sheep and condition of the weather. Hord preferred cross-breds for feeding, from a mutton or coarse-wooled ewe by a Merino ram. His grasslands covered twenty thousand acres in the richest section of the Cornhusker state. In 1900 Hord fed 14,000 sheep, 14,500 cattle, and 10,000 hogs; while at the peak he handled nearly 200,000 lambs, 30,000 cattle, and 14,000 hogs.

The most extensive sheep-feeding organization was managed by A. J. Knollin, and backed personally by Edward F. Swift, the Chicago packer. At that time Knollin<sup>18</sup> was conducting a sheep commission business in Kansas City. The Swift-Knollin interests customarily purchased all their sheep on the range and trailed them part way to the Nebraska and Kansas feedlots, using the railroads to complete the trip. The partnership owned from sixty-five to seventy-five thousand ewes on the range in Idaho, Utah, Oregon, and New Mexico, and in addition contracted thousands of yearling and two-year-old wethers. At the peak, Knollin handled about sixty-five thousand ewes on the range, and managed the feeding of about a hundred thousand wethers in Nebraska, Kansas, and Illinois, in addition to his duties as sheep buyer. No such extensive operation or competent organization had existed up to that time.<sup>19</sup>

#### NORTHERN COLORADO

In northern Colorado the principal lamb-fattening region concentrated in the Cache la Poudre Valley around the cities of Fort Collins, Loveland, and Greeley, or in the districts around Fort Morgan, Brush, and Sterling. This region also includes the tributaries of the South Platte River, Boulder Creek,

St. Vrain Creek, the Big and Little Thompson creeks. Its western boundary is the foothills of the Rockies, and the front runs nearly one hundred miles north of Denver. The eastern boundary is the South Platte River itself. The number of lambs fed in this district varies between half a million and a million-and-a-half head annually, and has averaged slightly under a million head each year since 1922.

The development of sheep feeding in central Nebraska and Kansas represented an attempt to take western bands to the regions of fattening feeds. The development in northern Colorado was by wool growers trying to produce feeds nearer to the breeding grounds. By the time of the surrender at Appomattox some Colorado farmers were attempting to fatten sheep. The base of the ration was alfalfa, which was introduced into the state from New Mexico in 1863, on the ranch of Colonel Jacob Downing.<sup>20</sup> By 1877 there was a respectable acreage of alfalfa in the vicinity of Fort Collins, but the Union Colony, downstream on the Cache la Poudre at Greeley, seemed more interested in wheat, corn, barley, oats, potatoes, and fruit. Even by the next census there were only fifteen acres of alfalfa near Greeley, the hay being fed to idle horses since it kept them fat without the use of grain.<sup>21</sup>

Success in growing alfalfa was largely dependent on the irrigation system. The first irrigation ditch was installed in the vicinity of Fort Collins in 1860.<sup>22</sup> Only

<sup>18</sup> See Biographical Appendix, A. J. Knollin.

<sup>19</sup> Black, Letter, September 16, 1938.

<sup>20</sup> Watrous, *History of Larimer County, Colorado*, 20.

<sup>21</sup> Ogilvy, Letter, May 12, 1938.

<sup>22</sup> The water right for this canal was granted June 1, 1860, to G. R. Sanderson of Pleasant Valley, near the town of Bellvue. In 1864 the ditch was purchased by J. H. Yeager and took his name. Later it was incorporated into the Pleasant Valley and Lake Canal System. Watrous (*supra*) gives interesting details of the irrigation development in the Cache la Poudre Valley.



FIG. 87—Watering sheep—first feeding operation on the Jennie Farr pre-emption.

one canal in northern Colorado preceded it, taking water from the South Platte. Development really commenced with the establishment of the Mercer Colony<sup>23</sup> in 1869, which selected for its base the site of old Camp Collins—a frontier post established in 1863 to guard the mountain division of the Overland Stage Line. The real fillip for agricultural development came in 1879 when the Colorado Agricultural College was established at Fort Collins. Alfalfa growing spread rapidly. By 1883 L. Ogilvy, near Lucerne, Colorado, had finished some trail wethers from Oregon on alfalfa hay. The market was not satisfactory that year but they were wished on Ogilvy for fattening by a banker who had to take them over for debt. Ogilvy wrote: "However, there were no hard feelings, as we were then supposed to do our own betting, and stand the gaff ourselves."<sup>24</sup>

The permanent establishment of sheep feeding in Greeley preceded that in Fort Collins. In the late fall of 1884, Walter J.

Farr,<sup>25</sup> who ran sheep in Albany County, Wyoming, and the northwest part of Weld County, Colorado, trailed some of his sheep from the Laramie plains in Wyoming to that community for feeding. They originated between Tie Siding and Steamboat Lake (west of Tie Siding), and were driven to the Jennie Farr farm in Greeley—then W. H. Farr's home-stead.

Tom Farr,<sup>26</sup> a younger brother, stated there were eight to nine hundred head

<sup>23</sup> Frank McClelland, *Express Courier*, Fort Collins, Colorado, January 23, 1935. Four or five scouts, headed by Alfred A. Edwards and the Rev. W. T. McAdams, came west from Mercer, Pennsylvania, in 1868 and selected the Cache la Poudre Valley as the most desirable site for colonization. The following year they were joined by the families of McAdams, George Sykes, Joseph E. Shipley, William Smith, and Jacob Collamer. Later other additions from Mercer took up land and formed the first of a number of colonies that subsequently settled Northern Colorado.

<sup>24</sup> Ogilvy, Letter, May 12, 1938.

<sup>25</sup> See Biographical Appendix, Farr Brothers.

<sup>26</sup> Thomas E. Farr, Greeley, Colorado. Interview with author June 15, 1938.

in the band, of which five hundred were wethers and the remainder lambs. With the help of another man, the band started for Greeley, Tom Farr driving the supply wagon the first day and the other man driving the sheep. The second day the duties were reversed. When they arrived near Steamboat Lake, in mid-afternoon, the temperature was dropping, with a raw wind pouring over the mountains. The sheep were very restless and unwilling to bed down when they arrived in the vicinity of a vacant hovel known as "Dirty Woman's Cabin." Tom Farr was so lightly clad (shirt, overalls, and boots) that he could not stand the cold blasts, and had to build a fire. It was eleven o'clock before the sheep were quiet, and he and his partner could get their supper. By this time the weather was so bitter that they brought the three horses into the cabin for warmth.

When they arose about five-thirty, the snow was drifted a foot or more deep over the plain, the sheep were nearly covered, and most of the grass was buried. Farr could not discover his boots, but finally found them outside the cabin door where he had left them in his exhausted condition of the previous night. Pulling them in, he shook out the snow, warmed them against the fire, and then set about his duties. Sheep that were lagging were pulled onto their feet and the flock gotten under way, grazing the bare spots to the south which the wind had uncovered. The temptation to kill a lamb and cover his thin shirt with its reversed pelt was great, but he withstood it, as it was his turn to ride in the supply wagon.

More than a week was occupied in driving to Greeley, where the feeding was undertaken in a corral two hundred feet from the well. The water was drawn with an old-fashioned windlass and bucket, the latter holding only two-and-a-half gallons. Tom poured the water

into two other buckets which he carried up-slope and emptied into the sheep troughs. This operation required from six A.M. to one P.M., and he was busy the rest of the day feeding the alfalfa hay, wheat, oats, and barley raised on the farm. When the five hundred wethers went to Denver the following spring, Tom felt "a lot of water had run off his shoulders."

The Farris were the chief influence in developing sheep feeding around Greeley. Walter J. Farr abandoned his railroad position in Wyoming, and moved to Greeley in 1885, in active partnership with his brother, W. H. Farr. That fall he fed out two carloads of sheep on his "pre-emption" four miles northeast of Eaton. These sheep were shipped directly to Chicago, and were the first fed sheep to go to that market from Weld County. In the early nineties the two brothers dissolved partnership, Walter Farr joining with J. S. Gale under the name of Gale and Farr, while W. H. Farr teamed with Jerome Igo to form the Farr Produce Company. When the Greeley sugar factory was established in 1902, the partners expanded their feeding operations greatly. Under the management of W. H. Farr's son Harry, and the supervision of his grandson William H. Farr, fifty to sixty thousand head are fed annually.

Another feeding center in the Greeley district was developed between Windsor, fifteen miles west, and Eaton, ten miles to the north. Benjamin H. Eaton<sup>27</sup> settled in Windsor in the seventies, and became one of the early feeders. He continued in the business until 1905 or 1906 when he turned the sheep over to

<sup>27</sup> Benjamin H. Eaton was one of Colorado's pioneers in the sheep industry. From his home in Coshocton, Ohio, he went west to the Maxwell Grant in New Mexico in 1869. When his first wife died, he removed to Kansas for a few years, where he re-married and in 1872 settled in the vicinity of Windsor, Colorado.

his son, Bruce B. Eaton. In addition to the commercial feeding, Bruce Eaton raised purebreds, exhibiting Southdowns, Shropshires, and Hampshires at the leading western shows. After the first World War, the third generation of the family, Rex Eaton, took up the feeding of lambs, and incorporated about 1930 as the Eaton Investment Company. The method of operation involved handling lambs on pasture, and then feeding them out on alfalfa and barley. Twenty-five to thirty cars were shipped each year for finishing in feedyards outside Chicago.

#### THE FORT COLLINS DISTRICT

Fort Collins was an early sheep center. Long before the feeding industry was initiated small bands were established in the area. One of the larger operators was Captain Charles Warren.<sup>28</sup> He came to Fort Collins in 1873, and three years later started a breeding flock on a tract of virgin but rough land near Warren Lake. In the early days he ran bands for others on contract, but soon started feeding. By 1890 this operation involved finishing three or four carloads a year and by the time of his death in 1898, between six and eight thousand head were fed annually. His son, Nathan C. Warren, enlarged the feeding plant until thirty to thirty-five thousand head were finished each season. In partnership with the Warrens have been Samuel and Charles Crane and Charles R. Evans, the latter a graduate of the first class at the Colorado Agricultural College. Contemporaneous with Captain Warren was another relatively large flockmaster, W. B. Miner, who was also associated with the Captain's cousin, Senator Francis E. Warren of Cheyenne.

The year 1889 in Larimer County saw prosperity arise from threatened disaster. Two brothers, E. J. and I. W. Bennett, who had been buying sheep in New

Mexico and fattening them in the Platte Valley of central Nebraska, obtained twenty-four to twenty-five hundred lambs that fall, from a range in northern New Mexico and southern Colorado. They expected to ship them from Trinidad to Denver and thence east, but a severe storm forced them to unload at Walsenberg.<sup>29</sup> After a delay of two weeks, during which the feed was almost entirely browse from the piñon trees, none of the lambs could continue to Nebraska.

Alfalfa hay (at two dollars per ton) was plentiful in Fort Collins at that time, so the shipment was forwarded there and herded twelve miles eastward to the ranch of Charles F. Blunck.<sup>30</sup> They were a "sorry lot," but after being fed on the cheap alfalfa and finished on corn, they were shipped to Chicago in March and April of 1890, where they brought \$5.05 to \$6.40 per hundred-weight. The first price was disappointing, but each consignment brought progressively better prices, with the last shipment bringing the top. Hence they felt that the venture had a sound foundation. The next year thirty-five hundred head went on feed, and in the fall of 1891, six thousand head.

The Bennetts continued in business for many years. For the first three years the lambs had to be moved in coal cars.

Judge of our surprise and chagrin, to find that the snow-white lambs we had loaded at Walsenberg, Colorado, where we had bought them off the range, were every one coal black when they arrived at Fort Collins. We fed them on Judge Haynes' farm, which is just at the southeast corner of the town.<sup>31</sup>

The growth of alfalfa extended rapidly, and around Fort Collins during

<sup>28</sup> See Biographical Appendix, Captain Charles Warren.

<sup>29</sup> *Express Courier*, April 28, 1936.

<sup>30</sup> John Clay, et al., *The Story of a Carload*, 11.

<sup>31</sup> I. W. Bennett, Letter to F. C. Grable, *Express Courier*, April 28, 1936.

the early eighties, the surplus of wheat and alfalfa found its most profitable outlet in the sheep industry. At times, alfalfa hay became a drug upon the market.<sup>32</sup> The stockmen suffered with the farmers, as there was a serious depression in the value of sheep, cattle, and horses between 1885 and 1890. Money was scarce and business correspondingly dull. Farmers in general turned to sheep feeding as the most promising outlet for their feeds.

The results were so encouraging that by 1896-97 the number of sheep and lambs on feed in the county had increased from thirty-five hundred to nearly two hundred thousand, and by 1901 to four hundred thousand. Many struggling settlers were able to pay off their debts and save their farms and homes. By feeding sheep and lambs, a home market was created for surplus alfalfa, coarse grains, and roots, and the fertility of the soil was better maintained.

Western wethers trailed into this district brought two dollars per head. New Mexican lambs brought a dollar and a quarter to a dollar and a half. One doleful prognosticator stated that the industry would be blasted if lambs ever cost a dollar seventy-five per head. Yet by 1911 a sixty-pound lamb cost \$3.50 to \$4, and the industry has since survived costs of fifteen to twenty cents a pound, or approximately \$10 to \$12 per head.

The growth of lamb feeding soon changed the price of alfalfa from two dollars a ton to eight dollars and more.<sup>33</sup> It averaged to provide a market for much Colorado-grown corn, and twenty million dollars' worth of western Nebraska corn. It gave employment to hundreds of men, and the manures not only helped preserve sugar beet production but also advanced the value of the land at least 50 per cent. In fact, feeders credited the manure annually at fifty cents per sheep, while

sugar beet growers calculated that it increased yields from six to ten tons of beets per acre.

Watrous<sup>34</sup> presents the following figures on the growth of the feeding industry around Fort Collins:

<i>Head of Sheep</i>	
Winter of 1889 .....	2,500
Winter of 1890 .....	3,500
Winter of 1891 .....	6,000
Winter of 1892 .....	30,000
Winter of 1893 .....	40,000
Winter of 1894 .....	60,000
Winter of 1895 .....	80,000
Winter of 1896 .....	128,000
Winter of 1897 .....	193,000
Winter of 1898 .....	250,000
Winter of 1899 .....	300,000
Winter of 1900 .....	350,000
Winter of 1901 .....	400,000

He estimated that between 1901 and 1910 the numbers fluctuated between two hundred fifty and four hundred thousand head, without much of an increase or decrease in trend.

#### COLORADO FEEDER PERSONALITIES

The dominating influence among northern Colorado feeders was exercised by William A. Drake.<sup>35</sup> He began fattening sheep on his farm near Fort Collins in 1892, handling about four thousand head. As his profits increased he bought more land, fed in partnership with others, and arranged with other farmers to feed his own lambs under his supervision. One of his early purchases included fifteen thousand head of lambs at Albuquerque at a cost of \$1.06 per head, the average weight being sixty pounds. His first northern-bred lambs were a band of thirty thousand head by Oxford rams out of grade Merino ewes,

<sup>32</sup> Watrous, *History of Larimer County, Colorado*, 250.

<sup>33</sup> *Express Courier*, April 26, 1936.

<sup>34</sup> Watrous, *History of Larimer County, Colorado*, 136.

<sup>35</sup> See Biographical Appendix, Senator William A. Drake.

which he purchased at Rawlins, Wyoming. He fed a hundred thirty-five thousand head at the peak of his operations, at which time he also operated in the Arkansas River Valley. In later years, about three-quarters of his stock were lambs and one-quarter were ewes, the latter getting beet tops, beet pulp, and the other cheap feeds.

Senator Drake was not of a speculative mind. But he felt that the year 1909-10 was going to be a bad one for lamb feeding, and advised all his friends to cut down their operations. He cut his own feeding to the bone, and in the face of the reduced numbers received a new top price in the spring of 1910 when he was paid \$10.25 per hundredweight on the Chicago market. This was nearly two dollars per hundredweight above any previous top for Colorado-fed lambs in Chicago. Such an experience so contradicted his judgment that he gauged operations thereafter by feedlot capacity.

Another important influence in the Fort Collins area began to be felt in 1892 as well. In that year Sam Webster<sup>36</sup> purchased six hundred lambs from M. E. Wheeler of Cheyenne, and trailed them back to Fort Collins. Before beginning to feed, he sought the advice of Thomas Beach, a retail butcher of Fort Collins. "What do you have to feed them?" asked Beach. "Plenty of alfalfa hay," responded Webster. "Well, I would just as soon buy a new wagon so I could wear out an old neck yoke!" Yet Webster profited enough on this single operation to meet the 12 per cent interest due on the money borrowed for his first farm.

The next year Webster went forty miles below Clayton, New Mexico, to purchase twelve hundred head. He contracted with a Mexican to help him drive the sheep to the railroad, but failed to include in the contract that they should be placed in the railroad pens. When

they reached the railroad, the cars were not on hand, but the helper refused to corral them and departed "pronto." After some difficulty Webster hired a local Mexican to herd the sheep while he ordered new cars. When these cars arrived, half the sheep were gone, friends of the herder having hidden them in their cellars, storm caves, and adobes, so that they might be slaughtered after Webster loaded out. Despite a most thorough search, he could recover only part of them, and his total shipment was short a half carload. Webster's operations increased until he fed from fifty to sixty thousand lambs annually on eighteen different farms, and with his son-in-law formed the firm of Crane and Webster to buy and distribute as many as a quarter of a million feeder lambs all over the western country.

Other great feeders near Fort Collins were Charles Warren<sup>37</sup> and son, "Nate," Jerry Beach, John Nelson, Sr., the Strachans, James and John Cuthbertson, and Adam Michie.<sup>38</sup> From 1890 on, James Milne of Lucerne was prominent in the business, while Jesse S. Gale of Greeley was one of the first to develop a modern plant having electric lights, pumps, heat, and power. Ed H. and Robert Trimble came from Gentryville, Missouri, in 1873 and were the first to bring lambs from

<sup>36</sup> Samuel Webster, Fort Collins, Colorado. Interview with author, June 15, 1938.

<sup>37</sup> See Biographical Appendix

<sup>38</sup> Other feeders contributed materially to the development of the industry in this area. Men who should be especially mentioned are the Giddings brothers, particularly "Chet" (E. Chester Giddings), A. C. Kluver, Jesse Harris, Alfred F. Howes, Francis C. Grable, William N. Batchelder, Frederick R. Baker, A. E. Blount, Judson and Noah Bristol, Rock Bush, Al A. Edwards, James C. Evans, Benjamin Jacob Flowers, J. S. McClelland, W. E. Mahood, Joseph Mason, J. D. Matthews, Norman H. Meldrum, Arthur H. Patterson, K. P. Pew, Benjamin Preston, Ladru R. Rhodes, Baptiste Provost, B. D. Sanborn, Frederick J. Schroeder, Charles H. Sheldon, William C. Stover, David Kelly, Earl Monroe, Charles F. Blunck and the Andersons, Aikens, Baxters, Sylvesters, Millers, Ewings, and Zieglers.

California for fattening in the Cache la Poudre Valley. As early as 1893, their lambs brought prices of \$6.85 and \$7.35 per hundredweight in Chicago. Yet like others, they saw their products sell all the way from \$4.50 per hundredweight—a figure that spelled ruin—up to the then record-breaking prices of World War I and World War II.<sup>39</sup>

#### THE SWITCH TO LAMBS

While lambs were included in feedlot bands by the mid-eighties, they were not looked on with favor by the operators because they were smaller, slower to finish, and more delicate. Yearling and two-year-old wethers continued in preference until 1892, when the loss of tariff protection destroyed their value for wool production. Hundreds of aspiring feeders lost their farms and feedlots. The supply of mutton and lambs continued low each winter since milk lambs were not available for slaughter. In different sections of the country the breeding season for sheep varied, so that lambs could be dropped from November or December into May, but a minimum of four months was required to prepare them for market. Hence there was a period, from the time of the first storms of autumn until early April, when milk lambs direct from their mothers could not be obtained. This stimulated practices that led to a national system of lamb feeding, supplanting the feeding of yearlings and ewes.

The first lambs for the rebuilding of the feeding industry came from New Mexico. The lambing season was earlier there than in Wyoming and Montana, and the tendency of growers all over the Northwest was to stick to wether production even though their markets had been "sour" for three or four years. A new day for the feeder dawned in the fall of 1896. Walter Farr wrote:

The first lambs I shipped out of New Mexico

were purchased by the firm of Gale and Farr in the fall of 1896. There were fourteen thousand head in this lot. I paid eighty cents per head for them, with a cut-back of 25 per cent, but remember we were operating under the Grover Cleveland administration. About thirty days after these lambs arrived in Greeley, William McKinley was elected president, and this class of lambs jumped to two dollars per head.<sup>40</sup>

The switch to lambs in these districts brought about a prompt reaction in the market. Lambs began to command a premium over wethers which broadened rapidly. This margin is shown statistically by quotations from the Chicago market:<sup>41</sup>

Year	Sheep	Lambs	Margin
1885 .....	\$8.60	\$4.10	\$.50
1890 .....	4.75	5.90	1.15
1895 .....	3.30	4.30	1.00
1900 .....	4.55	5.95	1.40
1905 .....	5.05	6.80	1.75
1910 .....	5.25	7.55	2.30
1915 .....	6.30	9.00	2.70
1920 .....	9.30	14.60	5.30
1925 .....	7.80	15.50	7.70
1930 .....	8.90	9.35	5.45
1935 .....	8.65	8.65	5.00
1940 .....	4.00	9.55	5.55
1945 .....	7.15	15.15	8.00

The spread of the margin was reasonably regular, the setback in 1895 being due to the "Cleveland hard times," and in 1935 to the depression of the early thirties which had not been overcome. The margin in 1925 was exceptional because of inflationary conditions all over the country, and consumers were discriminating more for quality than normally.

#### THE SUGAR FACTORIES

Coincident with the rise of lamb feeding was the development of the sugar factories. The beginning with sugar beets was inauspicious,<sup>42</sup> despite the

<sup>39</sup> Clay, *The Story of a Carload*, 27.

<sup>40</sup> Walter J. Farr, Greeley, Colorado. Letter to Charles M. Jackson, President, Weld County Savings Bank, Greeley, Colorado, May 27, 1936.

<sup>41</sup> *The Daily Drovers' Journal*, Chicago, Illinois. Yearbooks and records.

<sup>42</sup> Unsigned mimeographed manuscript dated 1927, in the library of the Colorado Agricultural College.

seventy-five to a hundred factories that cover the West today. In April, 1865, Peter Magness was sowing beet seed in the Platte River bottom, seven miles west of Denver. The seed was barely sufficient for two acres, and was bought in France by relatives who had forwarded him a small driblet from Illinois. At the same time a few miles west on Clear Creek, L. I. Perrin was trying the same thing, where he had settled during the first wave of the gold rush to the Colorado mines.

But even these two men were not the pioneer western thinkers for beets. On January 8, 1841, Guadalupe Miranda and Carlos Beaubien petitioned to Governor Manuel Armijo at Santa Fe to permit them to grow sugar beets on a portion of what was later the famous Maxwell Grant in New Mexico. The petition read in part:

We ask that your Excellency have the kindness to give us a piece of land, with the intention of improving it without damage to the Third Party (the public), particularly for the purpose of cultivating the sugar beet, which we believe will grow well and abundantly.

Perhaps tales of beets in old France had descended through his Gallic ancestry in Canada to Carlos Beaubien.

Magnes and Perrin not only joined forces but allied with them a German metallurgist and chemist who had settled in Denver, Prof. Jacob F. L. Schirmer, to conduct the tests of sugar content in their beets. His experience in this field had been gained in Germany. In 1871 a committee to solicit funds for a factory was formed, and Magness was sent east for castings of a small mill and press. The first promotion company was launched February 23, 1872, with Magness, Perrin, Schirmer, and others as subscribers. But matters drifted, and it was only when a state sugar convention was held in Denver, March 26, 1892, and county organizations were set up, that factories and lamb feeding developed.

The year 1899 saw a sugar factory in operation at Grand Junction on the western slope of the Rockies. Its construction was stimulated by visits of its citizens to nearby factories in Utah, and an exhaustive report on the Grand Island, Nebraska, factory by Mrs. C. E. Mitchell, wife of a Grand Junction druggist. Originally the Colorado Sugar Manufacturing Company of Grand Junction, it was sold to the Holly Sugar Company.

In 1900 the National Sugar Manufacturing Company established a plant at Sugar City, Colorado, and the American Beet Sugar Company one at Rocky Ford on the Arkansas River. The next year northern Colorado was reached. The Loveland plant opened in 1901, Greeley and Eaton in 1902, and Fort Collins, Longmont, and Windsor in 1903. Then, one hundred miles to the northeast of Greeley, a plant was established in Sterling in 1905, and one each at Brush and Fort Morgan (some forty miles southwest of Sterling) in 1906. The modern era of lamb feeding had dawned.

Although the factory at Loveland was opened in 1901, it took several years of experience in feeding the pulp to cattle before sheep feeders adopted it. A bulletin of the Colorado Agricultural College in 1902 demonstrated the undesirability of beet pulp for swine, but says:

In the Cache la Poudre, Big Thompson, St. Vrain, and South Platte valleys, which constitute the irrigated section of northeast Colorado, alfalfa is the principal product grown. Wheat comes next with oats and potatoes following in succession. The raising of sugar beets is assuming remarkable proportions, and may eclipse some of the former products in acreage and importance.<sup>43</sup>

The same bulletin showed that 50 per cent of the original weight of the beets remained in the pulp and noted that

<sup>43</sup> *Bulletin 74, Colorado Agricultural Experiment Station, September, 1902, 4.*

the purchase price varied from thirty-five cents to fifty cents per ton at the factory. It quoted "an eastern farm paper" to the effect that a price per ton had been obtained for pulp that was one dollar above the price originally paid for the beets. If freight charges up to a half dollar were involved in transporting the pulp, and haulage thereafter was two miles or less, feeders could figure a cost of seventy-five cents per ton more than was charged at the factory.

In 1904 and 1905 sheep were fed in rather large numbers at Longmont on the pulp from that factory.<sup>44</sup> One of the pioneers in pulp feeding was Charles Boettcher of Denver, who was a stockholder in the Grand Junction factory and the original Great Western Sugar Company. In partnership with C. A. Bowman of Longmont, the feeding was conducted near that city. The early years found the venture unprofitable, and in one of the off-years Bowman's capital was wiped out. This condition seemed characteristic of all the northern Colorado areas except Fort Collins, and from 1910 to 1915 a large proportion of the pulp was devoted to cattle feeding. Even today the bulk of the beet pulp in the Sterling-Fort Morgan district is fed to the cattle, although since 1934 there has been an increase in the number of lambs.

The growing of beets is largely a matter of contract. The sugar factory supplies the seed and buys back the beets on the basis of sugar content. Then the pulp, either wet or dry, is sold back for feeding on the farms in the areas where the beets were grown. Not all beet growers are feeders, but those that are usually get the preference in supply of pulp when crops are short. With the advent of World War I, the Great Western Sugar Company constructed two plants near Denver-Brighton in 1917, and Fort Lupton in 1920. Finally in 1926 a plant was established at Ovid.

Well over one-fourth of all sheep and lambs fed in the United States are fattened in Colorado, and one-eighth to one-sixth of them are fed in Nebraska. The lambs begin moving into the feedlot about the end of September or first of October. At this time the tops are removed from the sugar beets and the lambs are fed large quantities of tops before starting on the fattening rations. Beet tops usually last forty to fifty days but even before the supply is exhausted the sugar factories begin to operate and the wet pulp becomes available.

The bulk of the wet pulp is fed to cattle but lamb feeders formerly liked to use it during the first part of the finishing period. As the lambs go on the wet pulp, grain is added to the ration (a little barley or oats), as well as alfalfa, and the finishing for market is usually completed with barley or corn and alfalfa hay. A few feeders use corn from the start, but it is more expensive. As the lambs get fatter, the amount of pulp eaten daily decreases, and some feeders substitute dry pulp with 25 per cent of beet molasses added to it, along with the grain ration.

The majority start with a half pound of barley per head daily, continuing for four to six weeks, and then commence on corn, working up to one or one-and-a-half pounds daily. The grain is fed in long reversible troughs which can be cleaned of refuse or snow and dried while the next feeding is given on the clean side of the trough. Seven hundred to 750 lambs are in each lot, and fresh water is always available. The lots are well bedded with straw.

Sheep feeding was conducted in these irrigated regions many years before the

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"N. R. McCreery, District Manager, The Great Western Sugar Company, Denver, Colorado. Letter to author, May 20, 1938.

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sugar factories, and only the wet pulp involved a change in the system of operation. The feeding period usually covered at least 120 days, but was often lengthened. The larger operators usually started selling lambs in January as the runs from the Cornbelt feedlots began to decline. They sorted off the fatter animals each week and shipped them to market, but in occasional years it was necessary to continue feeding some lambs until late April, May, or even June, to reach market condition.

Lamb feeding in northern Colorado since 1922 has been as follows:

ESTIMATED NUMBER OF SHEEP AND LAMBS ON FEED IN NORTHERN COLORADO JANUARY 1 OF EACH YEAR

(U. S. Bureau of Agricultural Economics)			
1922 .....	760,000	1935 .....	840,000
1923 .....	1,175,000	1936 .....	980,000
1924 .....	1,150,000	1937 .....	750,000
1925 .....	1,250,000	1938 .....	880,000
1926 .....	1,190,000	1939 .....	805,000
1927 .....	520,000	1940 .....	730,000
1928 .....	1,265,000	1941 .....	660,000
1929 .....	1,100,000	1942 .....	845,000
1930 .....	1,490,000	1943 .....	675,000
1931 .....	975,000	1944 .....	675,000
1932 .....	1,100,000	1945 .....	695,000
1933 .....	955,000	1946 .....	555,000
1934 .....	835,000	1947 .....	390,000

THE FORT MORGAN DISTRICT

Feeding started in the South Platte Valley near Fort Morgan, Brush, and Sterling with the completion of the Fort Morgan irrigation ditch in the late eighties. J. P. Curry fed sheep north of Byers after 1888, but in 1890 moved over to the South Platte. His lambs were given corn and alfalfa, the grain being shipped from eastern Nebraska and Iowa.<sup>45</sup> When finished, the lambs were sent via the Burlington Railroad to the Chicago market, with stops for feeding en route at Lincoln, Nebraska, and Galesburg, Illinois. At Aurora they were unloaded into the Montgomery Feed Yards and several weeks were used in finally delivering and selling the lambs

on the Chicago market. These lambs cost three and a half to four cents a pound into the feedlot and weighed from forty-five to fifty-five pounds. After gaining fifteen to twenty pounds (which was considered excellent) they would bring from five to six and a half cents at Chicago. Curry gradually spread his operation until he placed lambs regularly with tenant farmers and fattened ten to fifteen thousand head.

A rival establishment for priority in the Fort Morgan area opened in the Weldon Valley in 1893. In that year James Hurley,<sup>46</sup> Theo. Jacobsen, Sr., "Hang" Igo, James Devine, Lyme Baker, and "Nate" Lamborn fed a total of about three thousand lambs. These were crossbred Navajos weighing from fifty to fifty-five pounds, and were bought from speculators at an average of \$1.25 per head. They went into the feedlots directly from the range about the first of October, and were fed until the first of May. A gain of twenty pounds was considered good, and twenty-five pounds was excellent. Corn and alfalfa comprised the ration, corn being shipped in for fifty cents per hundredweight, while alfalfa hay brought \$2.50 per ton. The feedlots established by these operators were similar to modern ones except that the panels were wider.

The only trouble early feeders encountered was scab, and many of them dipped as late as January. Both lime-

<sup>45</sup> J. P. Curry, Fort Morgan, Colorado. Interview with Ralph P. Graham, President, Colorado-Nebraska Lamb Feeders' Association, August 30, 1938. See Biographical Appendix, J. P. Curry.

<sup>46</sup> James Hurley, Interview with Ralph B. Graham, September 8, 1938. Hurley was born in Syracuse, New York, moving to Milwaukee, Wisconsin, at an early age. When eighteen years of age he came to Sidney, Nebraska, from which point he "freighted" to Deadwood, South Dakota. When the Union Pacific was finished up the South Platte in 1876, he settled in the Weldon Valley in Weld County, Colorado (now in Morgan County), and began farming and feeding.

and-sulphur and black-leaf-tobacco dips were popular. The usual death loss at that time was about 1 per cent. Numbers on feed increased each year from 1893 to the peak year of 1929. "Jim" Hurley fed lambs forty-two out of the forty-seven seasons until 1940, and his records show that the good years far outnumbered the bad ones. It took five days to ship to Chicago on the Union Pacific in the beginning, with feeding stops at Fremont, Nebraska, and La Fox, Illinois. The lambs usually shrank 5 to 7 per cent in weight and brought about five cents on the market. Losses from dead and crippled lambs had to be carried by the shipper.

A third early feeding establishment was that of W. H. Clatworthy.<sup>47</sup> In the summer of 1894, he went to Fort Collins where the Bennett Brothers, after promising advice and cooperation on feeding, sold him two thousand lambs which were shipped to Fort Morgan. They were turned over to Sid Prince for feeding, lots of the present-day type being constructed east of the city on the old Baker homestead. All of the experiences a beginner acquires came to the enterprise. Two or three weeks after the lambs went into the feedlot, Clatworthy noticed some small white blisters on them. The Bennetts identified the disease as scab and advised him to get some black-leaf-tobacco "40" and dip the sheep.

Clatworthy started, dipping only those that were infected until he had more dipped sheep than undipped ones. By this time the season was pretty well along. But he could not market them in that condition, so under February cold, he dipped them all and rid the lots of the disease, delaying his marketing another month. Prince recalls that it took four to five days to transport the lambs to Aurora, Illinois, and they were sometimes a month at that point getting

into final sale and slaughter. He says:

Like all lamb feeders we made money some years, and some years we lost. In the earlier years cost of lambs was about on a par with cost of feed and labor and we did not expect to get rich in a year. If we made fifty cents per head above expense we thought we had done well. Lambs cost about two dollars per head for fifty pound lambs, corn cost from thirty-seven to forty-five cents per hundredweight, oats and barley forty-five cents per hundredweight, and hay from two dollars and fifty cents to four dollars and fifty cents per ton.<sup>48</sup>

Although lambs in those early days were quite inferior to the lambs fed now, there was a rapid turnover some years. On one occasion in the late nineties Clatworthy had just bought the Tennant Brothers' lamb crop south of Brush at a dollar a head, turned them into his feedyard north of his residence on Platte Avenue in Fort Morgan, and watered them when a feeder from the Weldon Valley came in asking his price on them. Clatworthy asked \$1.25 for them and sold them before he had put any concentrated feed into them at all. This one transaction gave him half the profit he would normally make in feeding, and left him with enough feed to handle another yardful of lambs.

#### LAMB CONTRACTING

George Belmont commenced feeding at Brush in 1893, and after McKinley's election in 1896, numbers of others started feeding throughout the region. One of these men attained considerable notoriety. W. A. Snyder had been living south of Fort Collins, but about 1900 moved over to Fort Morgan and purchased a 120-acre farm three or four miles southeast of the city. This was already in alfalfa and he started feeding

<sup>47</sup> W. H. Clatworthy and S. M. Prince, Interviews with Ralph B. Graham, September 7, 1938.

<sup>48</sup> S. M. Prince, Letter to Ralph B. Graham, September 5, 1938. In the same letter, Mr. Prince, a lifelong Democrat, taunted: "By the way, these prices were during a Republican administration!"

lambs almost immediately. When the sugar factory opened in 1906, beets were planted as well. He was equipped to feed about twenty-five hundred head in 1909, when he began buying a few lambs on the side for the livestock commission firm, Clay, Robinson, and Co.

But Snyder now launched on another activity that overshadowed his feeding operations. In 1908 he had begun going to New Mexico to buy feeders on order for his neighbors. Many preceded him in this activity—in fact, the contracting of lambs is practically as old as their commercial feeding in the West.<sup>49</sup> When farmers were able to raise more feed than their own lambs could consume, they had to buy additional animals to market their products. It was also customary to top out the lambs, sending the best to market and holding the cut-backs over for shearing and fattening as yearling wethers the following year. If the yearlings failed to fatten uniformly, the cut-backs were again sheared as yearlings and carried over as wethers. This practice was not economical but when costs were low it was usually profitable.

The great difficulty in supplying northern Colorado was to have the lambs ready for delivery between September 20 and November 10, when the feeding operations started. A feeder could, of course, go to the lamb-growing districts and look at the flocks on the distant summer ranges or as they came down to the winter grazing grounds. However, this required long trips after reaching the railroad destination, and long waits for the lambs at the shipping point. Furthermore, when it was necessary to obtain lambs from more than one district, it was very difficult for the feeders to do their own receiving.

Hence it became natural for men who had contacts among both feeders and

growers to start an intermediary service—namely, they would agree with a feeder to deliver a given number of lambs meeting certain specifications at his rail point on a stipulated day at an agreed price, and they would contract with a grower to furnish them with lambs of the same, or broader, specifications at an agreed price also.

For example, one or two Fort Collins feeders often assembled, for several of their neighbors, orders totaling twenty-five to thirty thousand head, in addition to their own requirements of ten thousand head. In August they would go down to Española, New Mexico, where the Bond Brothers<sup>50</sup> operated a mercantile house. With one of the Bonds they drove out to inspect the various flocks, noted their condition, the condition of range and water supply, and the size, weight, and general vigor of the lambs. One year, the Bonds were able to buy the lambs at \$1.40 per head so that, if they suited the Fort Collins buyers, they might contract them at a slight advance per head, to cover death losses, handling costs, their own services and investments, and other factors. A contract was drawn up whereby the Bonds agreed to deliver seventeen thousand lambs at \$1.50 per head between October 5 and October 15 at the unloading point (subject to the railway furnishing cars), "the same to be healthy and in good condition, none to weigh under thirty-eight pounds." The Fort Collins feeders then continued to Las Vegas or Wagon Mound until they filled their requirements.

Early contracts were made at five cents per head for the dealer, and there was

<sup>49</sup> Brackenbury, Letter, June 28, 1938. See Biographical Appendix, R. Brackenbury.

<sup>50</sup> See Biographical Appendix, George and Frank Bond.

no agreement about scab. When the Federal government began to enforce disease regulations, one of the contract provisions required freedom from scab. Up to the early part of this century buying was done by the head, but scales were then installed and the lambs sold by weight.

The transaction was not always as simple as this. Brackenbury writes:

Three feeders of Eaton, Colorado, visited my office and said, "Brack, what can you do for us? We need six thousand lambs and want you to furnish them." I would, of course, be posted and in touch with growers and dealers, and either by head or by weight I would take on ten thousand lambs, six thousand going to fill the order and the other four thousand would be "goods on the shelf." I did not consider myself a speculator, but rather a merchant who purchases goods for resale. What's in a name, anyhow?

I had a big trade in those early days with Starr Brothers who bought yearling wethers for feeders around King City, Missouri. These were handled on a different basis. . . . I would—after wiring or telephoning Salt Lake City—make a contract for future delivery between B. F. Saunders of Utah and Starr Brothers for perhaps ten thousand yearling wethers—to be delivered at the Denver Stockyards with freight paid to the Missouri River, and to be weighed after a reasonable fill at (for example) \$3.35 per hundred pounds. Saunders would make these contracts and then depend on his own buying to fill them. Starr Brothers would re-contract to their customers in Missouri.

The advantage of these types of contracting is obvious. The feeders knew they could depend on filling their lots at a specified time. In the early days of feeding, profits were usually moderate and losses, when they occurred, were light. World War I upset both wool growing and lamb feeding, and since then there have been exceptional profits and disastrous losses.<sup>51</sup>

There were a large number of well-known dealers in feeder sheep—B. F. Saunders of Salt Lake City; A. J. Knollin of Kansas City, Missouri, and Soda Springs, Idaho; R. Brackenbury of Denver; the Bond brothers of New Mexico with their many partners; J. B. Long of Montana; the Culp brothers of Kansas and Utah; W. A. Snyder of Colorado; and Crane and Webster of Fort Collins.

Most of the big livestock commission houses after World War I—like Clay, Robinson, and Company, W. R. Smith and Company, and Merrion and Wilkins—also participated in the contracting business.

The rapid advance in prices with the first World War threw the contracting of lambs into hysteria. Competition grew so rapidly that operators were paying fifty cents and a dollar per head for lambs before they were dropped. Filling of contracts became a matter of luck and numerous growers had advance payments thrust on them for lambs that were never weaned or that were stillborn. Many who contracted to deliver lambs were unable to obtain them and lost their entire business when they were sued for failure to deliver on their contracts, or filled them at prices far above those stimulated. The crack in livestock prices in 1920–21 "broke" many others.

Snyder gradually increased his volume of contracting until in 1917 he filled orders for more than a half million head. These contracts were held in Colorado, New Mexico, Arizona, Utah, Nevada, Wyoming, Idaho, Montana, Washington, and Oregon. In California he contracted fat lambs, but never dealt in feeder lambs from that state. On the feeders' contracts he had increased his advances from fifty cents to one dollar per head, and during 1918 and 1919 he built up a tremendous volume by this liberal treatment. In 1917, the lamb crop was short and by pre-birth contracts he had better than half of the western lamb crop tied up. Lambs which he had contracted in 1916 for 1917 delivery at six to seven cents, sold to feeders for fifteen to seventeen cents. By 1919 he handled more than two million head on contract,

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<sup>51</sup> Brackenbury, Letter, June 28, 1938.

and had 125,000 lambs in the feedlot on his own account. His feeding operations were financed by Clay, Robinson, and Company, but his buying by Denver and Idaho banks.

The debacle started in the fall of 1920. Snyder was unable to find feeders who would fulfill their contracts, and he could not live up to his contracts with growers. Naturally the situation was impossible—he was accused of breach of faith and dishonesty by numerous growers, and attempts were made to bring criminal action against him. During the postwar period of 1921, bank losses were tremendous, and Snyder became swamped. Apparently he felt that he could meet his obligations if the opportunity to continue were granted. In 1921 he had a hundred thousand Wyoming lambs contracted at five cents a pound, which would have netted him one-and-a-half to two million dollars as the market turned. But he had no standing with his creditors, who had assumed a tremendous loss, and he finally failed for three-quarters of a million dollars.

This climax initiated a reaction all over the range country, and contracting diminished. The speculative fever subsided and for four or five years, contracting averaged less than a fourth of what it had been during 1918–20. Pre-birth contracts were entirely abandoned and have only been used in rare instances in the two decades and a half that have followed. Development of feeder-buying associations in states like Michigan, Ohio, Iowa, and North Dakota has changed the method of marketing in the East, and eastern feeders have not been interested in contracting on their own account. However, the practice is not dead.

#### EXPORTS OF FED LAMBS

Before 1894 heavy lambs and yearling wethers were shipped from Colorado

to England. These were long-fed animals weighing from 97 to 110 pounds per head, and were usually purchased at Chicago for export to Liverpool. In 1900, Beach and Foy shipped directly to Liverpool from Fort Collins, but hit a most unsatisfactory market and sustained great losses. Of these two partners, Jerry Beach was reputed to have furnished the money while William Foy provided the direct supervision. Foy remained in the country only three or four years, later feeding sheep at Sycamore, Illinois.<sup>52</sup>

However, there were sporadic exports of fat wethers all through the late nineties and the first decade of this century. Most of them were shipped from the Platte River district in Nebraska or from the wheatfields of North Dakota and Minnesota. Export animals had to carry firmer flesh and higher condition than those sold in the domestic trade, and had to be mature enough to withstand the hardships of the long voyage. Lambs were too delicate for this purpose, and the margin of profit in exporting fat sheep would not permit wether feeding to survive. The period of greatest activity started in 1896, and terminated with the financial stringency of 1907.

#### THE ARKANSAS RIVER VALLEY

The second most important feeding region in Colorado is in the Arkansas River Valley, the number fattened there varying from 175,000 head to as high as 475,000 head annually. Feeding in the valley began in 1884 and reached its peak in 1900, the year the American Beet Sugar Company established its first plant at Rocky Ford. During that year some 670,000 head of sheep were fed.<sup>53</sup>

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<sup>52</sup> T. C. Halley, Scott's Bluff, Nebraska. Interview with author, June 9, 1938.

<sup>53</sup> John L. Anderson, Secretary, Arkansas Valley Stock Feeders' Association, Las Animas, Colorado. Letter to author, August 1, 1938.

The first band of sheep fattened in the valley was brought there in 1884 by Armitrout, O'Neil, and Branelston Brothers, who fed six hundred yearling wethers on alfalfa hay.<sup>54</sup> The feedlot was about a mile north of La Junta on the old Armitrout ranch. It was a long corral with a rick of alfalfa lengthwise in it so that all the sheep could be feeding at one time. They were fed no grains, so did not fatten satisfactorily, and were sold at Pueblo.<sup>55</sup> H. C. Abbott visited the feedlot on October 1, 1884, and was not impressed with the operation.<sup>56</sup> In 1891 he formed the Abbott Livestock Company which full-fed seven thousand lambs, wethers, and old ewes on a farm seven miles out of Las Animas, Colorado. The feeding was handled directly by Abbott's partner, M. D. Crane. Between 1884 and the spring of 1892 there seems to be no record of sheep marketing from the Arkansas Valley. The following spring several feeding projects were in operation, such as W. A. Colt, Senator George Swink, Abbott and Colt, and Crane and Abbott. The sheep fed averaged one-third ewes, one-third wethers, and one-third lambs. The ration was shelled corn and alfalfa hay. When finished these animals were shipped to Kansas City and St. Louis.

In the fall of 1892 the Scott Livestock Company (including H. C. Abbott) began feeding, and customarily finished three to six thousand lambs annually. Throughout the early period the principal lamb feeder of the Arkansas Valley was W. A. Colt. During his maximum operations Colt fed as many as forty thousand head, purchasing both feed and feeders outside the Valley.

In 1895 H. C. Abbott trailed ten thousand sheep and lambs from Folsom, New Mexico, and the Trinchera (thirty miles east of Trinidad, Colorado) to Las Animas. Most of the animals were delivered at that point to Kansas feeders,

but there were twenty-five hundred high quality ewes in the trail flock which had been bred to purebred Shropshire rams brought via Michigan from Ontario. The purchasers of these ewes were Dick Klett, Sr., Jack Donald, and Jacob Weil, all of whom operated between Las Animas and Lamar. These rams and ewes became the foundation on which the spring lamb business in the valley was based. Later the Lamar region became quite successful in raising early alfalfa-fed lambs—from 1910 to 1915.<sup>57</sup>

From the Abbott trail sheep, 1,455 head were sold to W. A. Colt, then president of the Bent-Otero Company. This company included many important pioneer sheepmen of the valley, including Beatty Brothers of Manzanola, Senator G. W. Swink of Rocky Ford, Judge Moore of Las Animas, and P. J. Scott, president of the Bent County Bank. There was little money available for feeding loans in the Arkansas Valley. Abbott received only \$1.35 per head for his sheep, despite trailing them all the way from Folsom to Las Animas and thence upstream to Manzanola. They were delivered on November 17, 1895, and after receiving part payment, Abbott took a mortgage at 10 per cent interest from the Bent-Otero Company for the balance. The mortgage and note were sent as security to a bank at Hillsdale, Michigan, where Abbott received a thousand dollars at 7 per cent and made his settlements in New Mexico and on the Trinchera.

The following year, 1896, W. A. Colt fed about forty thousand lambs, half of them being purchased by Abbott. These lambs were fattened in bands of five

<sup>54</sup> Anderson, Letters, June 3, 1938, and August 1, 1938.

<sup>55</sup> H. C. Abbott, Representative St. Joseph (Missouri) Stockyards, Las Animas, Colorado. Letter to author, July 9, 1938.

<sup>56</sup> *Ibid.*

<sup>57</sup> *Ibid.*

thousand each along the river from Manzanola and Rocky Ford down to Las Animas. The profits totaled approximately six thousand dollars for the season 1899-1900.<sup>58</sup>

In 1897, H. C. Abbott moved to Springer, New Mexico, forming a partnership with S. Florsheim of that place and buying a half interest in thirty thousand sheep, twenty thousand of which were breeding ewes. They sold and drove many thousands of sheep and lambs into the Arkansas Valley, one year trailing ten thousand head to Beatty Brothers alone, at Manzanola.

#### ARKANSAS VALLEY FEEDERS

By 1900 many feeders were operating independently in this district. Among them were McIntosh Brothers, Beatty Brothers, Drake and Wagner, the Abbott Company, George Rieley, Rinehart and Burk, Purvis Brothers, and the Bent Otero Improvement Company. The Abbott Company and W. A. Colt were the biggest feeders before the day of the sugar factory, fattening between ten and twenty thousand head of which about 65 per cent were lambs and 35 per cent ewes and yearling wethers. The feeding operations would begin about November first and close about May 15, and the sheep were bought on the ranges in southeastern Colorado and New Mexico.

P. G. Scott, head of the Bent County Bank in Las Animas, did much to promote sheep feeding. Both by his example as a feeder and by his financing of other feeders he stimulated the spread of feed-lots a hundred miles in each direction along the Arkansas Valley. Although not identified with the company, he was instrumental in getting the American Beet Sugar Company to locate at Rocky Ford in 1900, and at Las Animas in 1907. In 1906 the factory at Swink, Colorado, now operated by the Holly

Sugar Company, also was established. These factories all exercised a powerful influence in extending the feeding business.

One of the most successful firms in the Valley was the McIntosh Brothers—William, Donald, and John—who located first in New Mexico in the late eighties. In 1890 and 1891 they sent up to Colorado large bands of New Mexican ewes, which they used as a foundation for one of the best of the early flocks in that part of the state.<sup>59</sup> By 1900 around thirty thousand head were owned in the two locations, and John and Donald McIntosh took half the flock, setting up headquarters at Las Animas. Feeding operations were started in Sylvia, Kansas, in 1893, but two years later they were transferred to Las Animas. By 1900 they were feeding eight to ten thousand head annually.

In 1907 they sold their Estancia Valley properties in New Mexico, and bought several farms in the vicinity of Las Animas. They also established the First National Bank at the latter point, with John McIntosh as president. One interesting feature of their operations was the *partidario* system they developed with a number of Scotch employes, all of whom became independent sheep feeders and flockmasters. They included John Cameron, James Murray, James Smith, John MacArthur, Sam Collins, and others.

In 1902 Jeter Arnold of Manzanola and Stauder and Sargent began feeding. Cliff Stauder went into the valley that year and found that the largest feeders then operating above La Junta were Beatty Brothers, W. A. Colt, and Jeter Arnold.<sup>60</sup> A feeder who later became

<sup>58</sup> See Statistical Appendix, No. 3.

<sup>59</sup> John Rawlings, Las Animas, Colorado, Letter to author, October 17, 1938.

<sup>60</sup> J. C. Stauder, Fowler, Colorado. Interview with author, June 17, 1938.



FIG. 88a—Shed lambing—the drop band near the canvas covered sheds (pp. 411-12). Most of the year the inside pens are open to sunlight. (United States Forest Service.)



FIG. 88b—The drop band by day—picking up ewes and newborn lambs in a box sledge to remove to the claiming pens in the shed (p. 412). (United States Forest Service.)



FIG. 89a (*Top*)—Wrangler catching sheep for shearing. FIG. 89b (*Bottom*)—Shearing crew at Z-T in Wyoming. FIG. 89c (*Inset*)—Shearing head for power machine. (Belden Photos.)

quite prominent was A. C. Comer who was in partnership with the Beattys. Arnold was operating with H. G. Dye.

When the sugar factory opened in Las Animas in 1907, Colt and Abbott made a deal with the company to feed about five thousand head, and Florsheim and Abbott about ten thousand. Lack of experience and the wetness of the pulp made the enterprise unsatisfactory.

Wet beet pulp was never used to any great extent in lamb feeding in that region, and since World War I has not been fed there at all. Opinion indicates that the pulp is a good feed, but factory prices and transportation charges from the mills to the feedlots made its use prohibitive. The principal stimulation to the lamb-feeding industry came from the beet tops which proved to be very good in starting the lambs fattening. Later, dried beet pulp and beet molasses were used in the ration, and when mixed with other feeds they proved very successful.

#### MODERN DEVELOPMENT

The primary rations in the Arkansas Valley were corn and alfalfa hay. About 1920 the use of barley was begun. Barley proved to be a good "starter" for lambs going into feedlots. It was at first fed alone for thirty to forty days, and then small quantities of corn were mixed with the barley, the amounts being increased gradually until during the last two or three weeks of the feeding period the grain ration was straight corn. As a protein supplement during the last few years, cottonseed meal has been used in amounts varying from one-tenth to one-fifth of a pound per head. During the dry years following 1930, some of the grain sorghums were utilized in certain sections of the valley.

Gradually much of the feeding has been taken over by larger concerns. Elmer Wagner, who was formerly a

partner of Senator Drake, now operates as a partner with the Bond interests of Albuquerque, and feeds thirty to forty thousand head annually. Two big operators from New Mexico who were located in the vicinity for some years were Gross, Kelly, and Company of Las Vegas, and the Moulton-Ilfeld Company of Albuquerque.

About 1910 the Arkansas Valley Stock Feeders' Association was formed with headquarters in Las Animas. This association has handled many of the delicate shipping problems involved in the rail transportation to market, the freight rates, the relations with stockyards, commission men, and packers, and many of the local questions inside the state dealing with taxation, disease control, and feed prices.

The volume of sheep feeding in the Arkansas River Valley is not as great as in northern Colorado. About 1922 the Bureau of Agricultural Economics of the United States Department of Agriculture began reporting lambs on feed:

#### ESTIMATED NUMBER OF SHEEP AND LAMBS ON FEED, ARKANSAS RIVER VALLEY—JANUARY 1

1922 .....	225,000	1935 .....	200,000
1923 .....	235,000	1936 .....	180,000
1924 .....	170,000	1937 .....	175,000
1925 .....	265,000	1938 .....	200,000
1926 .....	285,000	1939 .....	190,000
1927 .....	177,000	1940 .....	125,000
1928 .....	275,000	1941 .....	135,000
1929 .....	385,000	1942 .....	190,000
1930 .....	475,000	1943 .....	125,000
1931 .....	360,000	1944 .....	100,000
1932 .....	375,000	1945 .....	95,000
1933 .....	330,000	1946 .....	150,000
1934 .....	300,000	1947 .....	65,000

#### SAN LUIS VALLEY

In Colorado's San Luis Valley numbers fed range annually from forty to sixty-five thousand. This valley lies at the headwaters of the Rio Grande River, with the Continental Divide on the west and the Sangre de Cristo Range on the east. It comprises an area of four thou-

sand square miles with a general elevation of 7,500 feet above the sea. The valley floor is so level that it has been the victim of a number of real estate booms, on the theory that all the acreage is alike. But the disappearance of the streams below the surface a few miles from the mountains produces waterlogged land in some areas, and alkali spots in others. The system of irrigation makes water available on at least half of the area. Alfalfa was introduced about 1900 and was found to thrive.<sup>61</sup>

The principal feed for the sheep has been barley and peas. Pea fields formerly covered most of the valley, the greatest acreage occurring about 1905. Then the land became "pea-sick," the peas less nutritious, and the yields much smaller. The peak years of 1905-06 saw four hundred thousand lambs shipped out of the valley, of which comparatively few were bred there, the remainder being shipped from New Mexico.

In the heyday of pea-feeding, the frost usually struck the pea fields by the middle of October and made them ready for the lambs to begin grazing. They were started slowly, being allowed at first on the peas only two hours per day. The plants attained a height of about four feet and the lambs were virtually out of sight when they first began grazing. Daily the time in which the lambs remained on the fields was increased, until after three weeks all danger of bloat seemed past and the lambs were on full feed.

Herders kept them grazing within reasonable bounds rather than permitting them to roam over wide areas. At night they were corralled under the herder's care, with temporary movable fences. Ten lambs to the acre was the usual rule, and a herder cared for approximately a thousand head.

The whole period of feeding was about one hundred days and the average gain was ten to fifteen pounds per head.

Feeding was not continued late into the winter, and the bulk of lambs were usually marketed by the first of February. The fattening lambs consumed about two-thirds of the peas, and the residue was left for the breeding ewes and the hogs. Some oats or barley was usually grown with the peas as a nurse crop, and consumed with them. Alfalfa production has increased rapidly in recent years. In some places the pea crop was cut green and pea hay was fed to the lambs along with the alfalfa.

Among the early stockmen of the valley were F. Sylvester and his six sons, who came from Boone County, Iowa, in 1891.<sup>62</sup> The shift from cattle to sheep in the valley began about 1900. In 1901, Sylvester turned part of the lambs to be fattened onto a field of peas which he had been unable to harvest. To his surprise, the lambs outweighed those of the feedlot and dressed better carcasses at the market. This unexpected result established the practice of turning the lambs onto the pea fields. The Mexicans had always grown peas for their own consumption and for fattening two or three razor back pigs that were part of their domestic *menage*. It remained for the American settlers to put the peas on a commercial basis. Sylvester and Sons eventually reached a maximum of thirty thousand lambs in feeding operations.

Other early feeders included Tom Hawkins from Missouri, who located near Monte Vista, and fed fifteen to twenty thousand head at his best; W. C. Macy, who came into the valley in 1905 from Indiana, settling in Monte Vista and feeding about five thousand head annually; and "Abe" and "Ed" Matthias, who also came about 1905. When Abe Matthias lost his eyesight, his son Harvey Matthias carried on with about five

<sup>61</sup> L. B. Sylvester, Monte Vista, Colorado. Interview with author, July 29, 1938.

<sup>62</sup> See Biographical Appendix, The Sylvesters.

thousand lambs each season. Another big feeder of the earlier years was James Kelley, who came to Monte Vista in 1890 representing the Hartford Insurance Company interests. This company indirectly held mortgages on some of the irrigation ditches, and Kelley took advantage of his location to develop a feeding plant, finishing some eight to ten thousand lambs annually.

At the crest of the pea-feeding boom, about 1912 to 1918, Frank Coller, a protege of Boyd Wallace, banker of Monte Vista, fed about five thousand lambs each season, as did W. J. Sanderson, also of Monte Vista.

Lower down in New Mexico, the Sargent (father and two sons) settled in the Rio Grande Valley. The elder Sargent was a blacksmith who had come out from Grant County, Wisconsin, and he picked up a pre-emption on the Rio Alto just west of where it joins the Rio Grande River. John Sargent moved up to Antonito where he fed around five thousand lambs annually. His brother Ed went up the Chama River and settled at the village of Chama. His feeding operations expanded rapidly, and soon he and Frank Bond of Albuquerque had lambs in feedlots all over the Colorado and northern New Mexico country.

With the development of "pea-sickness" in the soil and the restrictions of the Forest Service, many who had been feeders turned to range sheep. However, the development of bald and Colseth barleys (with beardless hulls), which could make a crop in seventy to eighty days, tended to stabilize the situation somewhat. Barley with cottonseed meal is once more restoring the reputation of San Luis lambs.

Before World War I nearly a half million head were on feed, but in recent years the number fed in the valley has fluctuated. It was as low as ten thousand head in 1935, and reached ninety thousand in 1931. The following table shows

the number of lambs on feed, as estimated by the U.S.D.A.:

ESTIMATED NUMBER OF SHEEP AND LAMBS ON FEED, SAN LUIS VALLEY—  
JANUARY 1

1922	30,000	1935	10,000
1923	65,000	1936	45,000
1924	55,000	1937	45,000
1925	60,000	1938	40,000
1926	75,000	1939	40,000
1927	54,000	1940	35,000
1928	30,000	1941	10,000
1929	22,000	1942	25,000
1930	45,000	1943	10,000
1931	90,000	1944	10,000
1932	50,000	1945	10,000
1933	65,000	1946	5,000
1934	60,000	1947	5,000

WESTERN SLOPE AND SMALL DISTRICTS

On the western slope of the Rockies in the vicinity of Grand Junction, Delta, and Montrose, another feeding section exists where the numbers vary from ten to fifty-five thousand head. The sugar plant at Grand Junction was established in 1899 with a capacity of eleven hundred tons of sugar daily. Lamb feeding followed soon afterwards. In 1920 a still larger plant, with a 1,250-ton capacity, was established at Delta. Both were operated by the Holly Sugar Company.

The Grand Junction plant was the pioneer in Colorado and was patterned after a plant at Alvarado, California. Feeding on the western slope has never been as extensive as farther east, yet in 1931 there was a total of 80,000 lambs.

ESTIMATED NUMBER OF SHEEP AND LAMBS ON FEED, WESTERN SLOPE—  
JANUARY 1

1922	25,000	1935	30,000
1923	25,000	1936	35,000
1924	25,000	1937	45,000
1925	25,000	1938	55,000
1926	25,000	1939	30,000
1927	19,000	1940	30,000
1928	10,000	1941	30,000
1929	13,000	1942	30,000
1930	25,000	1943	25,000
1931	80,000	1944	25,000
1932	25,000	1945	15,000
1933	40,000	1946	20,000
1934	40,000	1947	20,000

## COLORADO FEEDING TOTALS

Scattered Colorado districts have done some feeding. Government estimates for 1931 showed 45,000 head fed outside the big areas, and in 1932, 40,000. But then numbers ran only 5,000 to 15,000 until 1947, when the wheatfields of Kiowa County were used heavily, and the 40,000 figure was again reached.

In 1930 two million lambs were fed in Colorado, and only eight times since World War I has the number fallen below one million. The Department of Agriculture did not begin estimating Colorado sheep and lambs on feed until 1914, and for the United States until 1922. This table shows development of the industry and the importance of Colorado, although it demonstrates lamb feeding elsewhere since 1940:

## THE WESTERN NEBRASKA DISTRICT

In the North Platte region of western Nebraska sheep feeding started on a small scale with the irrigation ditches. The late eighties saw four men from the Greeley-Fort Collins district in Colorado move into the North Platte Valley—William P. Akers, John W. Weeks, Charles W. Ford, and Robert G. Walsh. They settled in the vicinity of Gering, although the district from Bridgeport westward to Fort Laramie in Wyoming eventually became sheep-feeding country, with extensions to Guernsey and Wheatland, Wyoming.

At this date the river was about three-fifths of a mile wide, and when it overflowed in the spring and early summer it was often more than a mile wide. The first canal for irrigation started on

ESTIMATED NUMBER OF SHEEP AND LAMBS ON FEED JANUARY 1

Year	Colorado Number	Percentage of Total in United States	United States Number
1914.....	1,300,000		
1915.....	1,116,000		
1916.....	1,150,000		
1917.....	1,250,000		
1918.....	1,135,000		
1919.....	940,000		
1920.....	950,000		
1921.....	1,283,000		
1922.....	1,040,000	29.2	3,557,000
1923.....	1,500,000	35.7	4,206,000
1924.....	1,400,000	32.7	4,280,000
1925.....	1,600,000	39.3	4,074,000
1926.....	1,475,000	31.8	4,644,000
1927.....	770,000	17.7	4,348,000
1928.....	1,580,000	34.6	4,569,000
1929.....	1,520,000	31.0	4,900,000
1930.....	2,035,000	34.0	5,988,000
1931.....	1,550,000	28.1	5,513,000
1932.....	1,590,000	25.6	6,220,000
1933.....	1,400,000	24.3	5,751,000
1934.....	1,250,000	23.8	5,259,000
1935.....	1,085,000	19.1	5,669,000
1936.....	1,250,000	21.9	5,701,000
1937.....	1,030,000	18.4	5,597,000
1938.....	1,185,000	19.5	6,091,000
1939.....	1,105,000	18.8	5,885,000
1940.....	925,000	15.8	5,841,000
1941.....	865,000	13.4	6,479,000
1942.....	1,115,000	16.1	6,928,000
1943.....	860,000	12.3	6,979,000
1944.....	825,000	12.6	6,537,000
1945.....	840,000	12.2	6,858,000
1946.....	780,000	11.6	6,724,000
1947.....	520,000	8.6	6,029,000

the north side of the river and watered two to three thousand acres. It was built by slips and scrapers (horse drawn) and became known as the Farmers' Canal, and finally as the Farmers' Irrigation District. On the south side of the river in the late eighties, the Mitchell Ditch irrigated ten to twelve thousand acres on the south bank of the river as far east as the mile posts of the Oregon Trail at Scottsbluff. A few years later the Gering Ditch took water from the North Platte just inside the Nebraska line, continued east of Scott's Bluff (bluff) and irrigated four to five thousand more acres.

On the north side, Winter Creek Ditch left the river above Scottsbluff (city) and watered five thousand acres. Then the Enterprise Ditch was established higher up the side of the valley. Still later the Farmers' Canal was opened in the Torrington district, but the Tri-State Canal bought its rights and put in a big ditch that left the North Platte a mile east of Henry, capable of watering seventy-five thousand acres. Finally when the Pathfinder Dam was constructed above Casper, Wyoming, the Department of Reclamation created the Nebraska-Wyoming Project with ditches starting at Guernsey, Wyoming. The north ditch was known as the Pathfinder and was capable of watering more than one hundred thousand acres. Abandonment of sandy land near the east end of the district finally limited the area to eighty-eight thousand acres. The south branch of this project was known as the Gering-Fort Laramie Ditch.

These canals provided the basis for the feed crops. First there was alfalfa and grain (mostly barley), but beets were also grown and shipped on the Burlington Railroad to Grand Island. A factory having a five hundred ton daily capacity had been established there in 1890 by the American Beet Sugar Com-

pany. This latter railroad came up the north side of the valley in 1900.

Sheep ranged over the North Platte country in small numbers before the ditches, but were not able to withstand the competition of cattle. "The sheep man was always dreaded and hated . . . but fortunately there were none in the North Platte Valley close enough to molest the cattle range."<sup>63</sup> North of Bridgeport near the present town of Angora, in the northeast corner of Scott's Bluff County, the Sand Hills develop breaks quite suitable for sheep raising. Between 1892 and 1900 Lowry Brothers had three or four sheep camps in this region and ran from two to five thousand head. About ten miles north of Gering at this time, Antone and Wenzel Hiershe, Austrian brothers, ran from two to four thousand head of Rambouilletts. They started operations southwest of Gering, but as the farm settlement increased, they moved farther and farther north of the river. The Hiershes came into the vicinity in 1885.

Gering itself was named for a short-term sheepman,<sup>64</sup> the German-born Martin Gehring, who came to the United States in 1858. Made a sergeant in the 4th Pennsylvania Cavalry Volunteers, he came west to Omaha after the war and then moved on to Westerville, in Custer County, seventy-five miles upstream from Grand Island. He filed on a homestead and a pre-emption, and invested in two thousand head of sheep. Storms destroyed all of his flock except two hundred head, it being a phenomenally hard winter. Mrs. Gehring wanted to go back to Susquehanna where they had operated a hotel, livery barn, and saloon. Gehring was obdurate, saying, "No, I'm going to stay mit, but no more

<sup>63</sup> *The Gering Courier*, Gering, Nebraska, April 30, 1937, Section IV, 13.

<sup>64</sup> *Ibid.*, Section III, 12.

goltam sheep." Soon he moved into the North Platte Valley and when the settlement to the east of Scott's Bluff (bluff) and south of the river was opened in 1887, his name was affixed.

Sheep were not fed in large numbers before 1907. Lever relates an interesting incident:

My outstanding memory of sheep feeding . . . goes back to Wheatland, Wyoming, in . . . 1904 or 1905, (when) the late Martin Johnson started feeding lambs on wheat screenings. The lambs were overfed, and as a result, the wool slipped. When the late D. D. Cutler, at that time General Livestock Agent of the Northwestern R. R., sent me over to Wheatland to investigate the feeding, I found that Mr. Johnson and his associates were so much afraid of the lambs freezing they had made overcoats for them out of gunny sacks. It was truly one of the most remarkable sights I have seen in feed yards.<sup>65</sup>

In 1907, a man from Omaha named Perley formed a partnership with a Douglas, Wyoming, rancher by the name of Gibson and they fed a few lambs of the latter's breeding—Perley providing the finances. The next winter, 1907–08, W. H. Gable began feeding north of Scottsbluff (city). He had been a range sheepman in the Big Horn Basin near Thermopolis, Wyoming, but moved near Scottsbluff in 1904–05. In this same season T. C. Halley came to Scottsbluff from Dover, southwest of Cheyenne. For forty years thereafter he was the principal lamb feeder of the area, averaging forty to fifty thousand head annually, of which eight to ten thousand head were handled on his own farm.

Lamb feeding spread up and down the river from Scottsbluff and the numbers increased with the establishment of the sugar plants. The Great Western Sugar Factory opened a 2,900-ton plant in Scottsbluff in 1910, followed by factories in Gering, in 1916; Bayard in 1917; Mitchell in 1920; Minatare in 1926; and Lyman in 1927. These increased the feeding operations greatly, although it was 1916 before a hundred

thousand lambs were fed in the valley. Over the line in Wyoming the Holly Sugar Company established a 2,800-ton factory in Torrington in 1926.

By 1907 sugar beet growing had become fairly well established. The first commercial area was a forty acre tract in 1901 a half mile west of Bridgeport, the beets being sold at the Grand Island factory, opened in 1889. The growers hauled their beets to Scottsbluff and shoveled them into box cars for transportation to factories at Ames, Nebraska, and Sterling, Colorado. The Great Western Sugar Company started feeding ewes and yearling wethers as a demonstration to other feeders, though they believed the acid of the beet pulp was too strong for the lambs' digestive systems. Such difficulty as existed probably lay in the fact that the lambs were fed pulp alone, an unbalanced ration for a growing animal. During the first thirty years of the factories, 15,582,782 tons of beets were grown in the North Platte Valley. The livestock industry grew with it and fed for market, in 1937, 325,000 lambs and 41,000 cattle.<sup>66</sup>

Fred Klinck of Denver began feeding near the Scottsbluff factory in 1911, as did George Hurd of Billings and Lee Simonsen of Thermopolis. They, too, fed only older sheep. Klinck and Hurd soon became partners but Hurd spent little time in the valley, finally moving from Billings to Denver. Still later he bought a range flock near Magdalena, New Mexico, whose progeny he fattened east of Denver. In the year 1928–29 he started feeding in the Arkansas River Valley, but died the following year.

When the Mitchell sugar factory was established in 1920, Klinck became associated with Fred Bellamy of Mitchell

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<sup>65</sup> Julian Lever, Casper, Wyoming. Letter to author, September 29, 1938.

<sup>66</sup> *The Gering Courier*, April 30, 1937, Section V, 11.

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as his partner. They had ups and downs, losing much money in the bad market of 1920. But Bellamy recouped splendidly in 1921 and moved to Scottsbluff, where he died in 1931. At their peak, Klinck and Bellamy handled more than a hundred thousand lambs annually.

In 1929 Frank Bond of New Mexico began feeding at Scottsbluff with Cullen P. Wright, but discontinued four years thereafter, beginning operations in 1939 with T. C. Halley. This partnership proved very successful. Halley developed a uniform feeding policy, never dodging what portended to be a bad year, nor expanding on prospects of a good year.

With the serious drouth of 1934, the grasshopper plagues, and the 1936 drouth that followed, alfalfa acreage decreased to an alarming extent all over Nebraska, but especially where there was no irrigation. Sheep feeding scattered out over an even larger territory, and broke up into smaller units. Interest began to turn to grain sorghums and other drouth-resistant crops. The "Dry Thirties" proved, for Nebraska sheep feeders, to be the most disappointing years of any period, yet 260,000 lambs were on feed January 1, 1947.

#### MONTANA FEEDLOTS

Sheep feeding has been conducted in four sections of Montana. Around Missoula, alfalfa and sugar beets are produced on which feeder lambs were fattened during the fall and winter months. From 1926 to 1930 the average number fed ranged from twenty to twenty-five thousand head, but from 1931 to 1935 the total declined to five or ten thousand head, and current feeding is small. Most of the lambs were marketed from December to February and went to the West Coast.

In northern Montana, in the Milk River Valley near Chinook, from thirty to forty thousand lambs are fed annually

on alfalfa, beet pulp, and limited grain. These lambs are usually marketed between December and March and are sold at St. Paul and Chicago.

On the lower Yellowstone River in northeastern Montana and northwestern North Dakota is a small irrigated valley centering around Sidney, where alfalfa and sugar beets are produced in profusion. From sixty-five to a hundred thousand lambs are fed yearly, the lambs running to market between January and March. Many of them go to Chicago, although numbers stop at Fargo and St. Paul.

The principal feeding area in Montana is the irrigated valley of the Yellowstone River near Billings, where a total of some thirteen thousand acres is available. Alfalfa and sugar beets are grown in the bottoms and small grains on the slopes. From 75,000 to 125,000 head are marketed annually from December to March, being slaughtered at Chicago, Omaha, Fargo, and St. Paul.

The first feeding was undertaken in 1885. Alfalfa was raised by this time in the irrigated section on quite a large scale. The pioneer grower of alfalfa, B. F. Shuart, a Congregational minister, was also the first fattener of sheep for market. His original venture included five hundred 2-year-old wethers fed on straight alfalfa. They put on a nice gain and made a much better profit than did the range wethers. By the mid-nineties there was a sharp swing from wethers to lambs, the feeders buying range lambs the first of October at an average weight of about fifty-five pounds, although the prices were by the head. They would gain ten to fifteen pounds and were sold to buyers about the first of the year to finish on wheat screenings around St. Paul and Minneapolis. The usual price was about five cents per pound.

In the nineties a quarter of a million lambs were on this kind of feed in the

Billings section. I. D. O'Donnell fed as many as thirty thousand lambs two different years at this time. These lambs were purchased at ninety cents per head, while wool sold as low as six cents per pound. The wool market was so bad in 1896 that when O'Donnell shipped to the Dewey-Gould Company, after an advance of six cents per pound, he had to meet a drawback.<sup>67</sup>

Real finishing of lambs began with the advent of the sugar factory in 1906. The Great Western Sugar Company installed a plant with a 3,500-ton daily capacity and the feeders began using beet tops, wet pulp, and molasses. While the factory did some lamb feeding, most of the fattening was by farmers who finished both lambs and old ewes. Some of the feeding at the plant was done on contract, the lambs being taken in and turned out on a pound basis. A good feeder put on twenty-five to thirty-five pounds of gain in a hundred days with a usual spread in price of one to two cents a pound.

Besides the home-grown feeds, corn was imported from Nebraska and cotton-seed cake from the South. Many farmers fed on contract but others assumed the price risks themselves. By feeding, conservative farmers got fair prices for all the by-products of their farms, plus a reasonable margin of profit. What is known as the "Billings section," which includes a little more than Yellowstone County, still fattens annually about a quarter of a million lambs.

#### THE ST. PAUL AREA

During the middle of the trail-driving period, a thriving business in sheep feeding began in the St. Paul area. This was based on grazing the Dakota wheat-fields after harvest, and feeding the wheat screenings from the elevators supplying the flour mills. Credit priority goes to a Scotchman, William Rae, father

of the Rae brothers, who were engaged so long in Montana and Dakota sheep production. During the winter of 1884-85 he commenced feeding wheat screenings on his farm at Fargo, North Dakota,<sup>68</sup> and shipped the fattened animals on to Chicago.

In 1887 the South St. Paul livestock market was opened, and "Doc" Armington, of Great Falls, Montana, fed several loads on wheat screenings at that point. The price of these screenings was \$2.50 per ton, delivered, and the feeding pens were located in old Block 3 of the public yards (now Block 4).<sup>69</sup> By 1888 a fair start was made in the feeding of sheep in transit from the Northwest to Chicago, and Rae Brothers began operations at Livingston, Montana. In 1889 A. B. Stickney reported:

Winter before last the first experiment was made with a few sheep. The result was so encouraging that the same parties last winter fed at the Yards something over ten thousand sheep, and this winter additional buildings will have to be erected to supply the demand—fully twenty thousand are already contracted for, and it seems probable that forty thousand sheep will be fed this winter at the South St. Paul stockyards. . . . Probably the most astonishing statement . . . is . . . that sheep are being bought as a legitimate private business venture at the Chicago Stockyards, shipped to St. Paul and fattened, and then returned to Chicago for sale. Within the last sixty days, over three thousand of this class of sheep have been received, and . . . parties are now negotiating for thirty thousand sheep in Texas to be brought to Minnesota to be fattened during the winter and made ready for the spring market.<sup>70</sup>

In 1889 also, feedyards were started at New Brighton, not far out of St. Paul on the Soo Line. Here J. B. Long of

<sup>67</sup> O'Donnell, Letter, August 16, 1938.

<sup>68</sup> Thomas Good, Manager South St. Paul Stockyards Company, South St. Paul, Minnesota. Letter to author, August 31, 1940.

<sup>69</sup> Allen Fitch, South St. Paul, Minnesota. Letter to author, August 9, 1940. Also Good, August 31, 1940.

<sup>70</sup> A. B. Stickney, President, South St. Paul Stockyards Company, South St. Paul, Minnesota, annual report to stockholders for 1889.

Great Falls, Rae Brothers, and a man named Fitzgerald fattened considerable numbers.<sup>71</sup> Both J. B. Long and the Rae Brothers used St. Paul and New Brighton simultaneously. Long's sheep at St. Paul were handled by William Edgar, a familiar figure at those yards in early days. The year 1892 was unfavorable to sheep feeding and the large sheep-feeding barns, built at St. Paul in 1890, still retained many head put on feed in 1891. During the four years that followed, the region south of St. Paul, around Winona, Minnesota, began to handle Montana lambs that were trailed to Belle Fourche, South Dakota, and shipped by rail.<sup>72</sup> The principal feed was wheat screenings, but one year of low prices wiped out the operation.

By 1895, the business at St. Paul was on its feet again. The annual report states:

Your Company built three barns in 1890 with capacity to house five thousand head in each; and besides these barns, several pens in the Yards have been reconstructed so as to afford enclosures for twelve thousand head more; so that we now have accommodations for twenty-seven thousand head all together. But even that is but a portion of what could be done at our Yards. . . . Lacking the necessary accommodations, we were obliged to refuse a contract to take four thousand lambs, and the contract went to the Twin City Yards. At those Yards some hundred thousand head were cared for this winter.<sup>73</sup>

Rae Brothers were the big operators in this region, handling up to a hundred thousand head in the course of a year. Beginning with 1896, they leased twenty barns at the north end of the St. Paul Yards, each with a capacity for feeding a thousand sheep.<sup>74</sup> Just northeast of New Brighton (on the old Belt Line Railway), the Fletcher Brothers fed throughout the early nineties,<sup>75</sup> but their property was taken over by George Beasley<sup>76</sup> beginning in 1895 (later Callahan and Beasley). Wyman Brothers also started feeding in 1895<sup>77</sup> and in 1897

handled between fifteen and twenty thousand head.<sup>78</sup>

During this year more than 250,000 head of sheep were fed at the New Brighton yards, which was then considered the largest sheep-feeding center in the country.<sup>79</sup> Other large operators at that time included Kit Dimsdale of Dickinson, North Dakota; Ralph Berry of Montana; Jandell Brothers (who handled eight to twelve thousand head), Franklin Brothers, A. S. Glover, Pope and Howard, Hunter and Anderson (the last three each handling forty to seventy-five thousand annually), George Humphrey, and a big feeder named Sperry. Just 5 per cent of these sheep were sold locally,<sup>80</sup> the remainder of the quarter million going to Chicago.

The Rae Brothers were the only ones who trailed all the way from Oregon. They usually drove into the Red River Valley near Fargo about harvest time, pastured their sheep on the grain stubble, and then finished the drive to market for a last short feed.<sup>81</sup> J. B. Long usually shipped from eastern Montana<sup>82</sup> to the Dakota wheatfields and then shipped again to the feedlots. Miller Brothers of Chinook, Montana, also shipped ewes and lambs into North Dakota, and then reshipped them east, the fat lambs for slaughter and the remainder to the St. Paul feeder market.

<sup>71</sup> J. T. Crosby, South St. Paul, Minnesota. Letter to author, October 17, 1938.

<sup>72</sup> Lever, Letter, September 29, 1938.

<sup>73</sup> Good, Letter, August 31, 1940, quotes annual report to stockholders, South St. Paul Stockyards, 1895.

<sup>74</sup> *Ibid.*

<sup>75</sup> Fitch, Letter, August 9, 1940.

<sup>76</sup> Good, Letter, August 31, 1940.

<sup>77</sup> Fitch, Letter, August 9, 1940.

<sup>78</sup> Good, Letter, August 31, 1940.

<sup>79</sup> *Ibid.*, quotes Felix Durocher, South St. Paul Stockyards, South St. Paul, Minnesota.

<sup>80</sup> *Ibid.*

<sup>81</sup> Crosby, Letter, August 8, 1940.

<sup>82</sup> Clary, Interview, January 19, 1939.

William Aull was in charge of this feeding operation. A. M. Cree trailed yearling wethers from Oregon into eastern Montana during the nineties, and then sent them to his farm at St. Paul Park, where he finished them. He handled about twenty thousand head a year in this manner. The Swift-Knollin interests started feeding in 1897, and in 1900, Friend-Crosby and Company began operations, both at St. Paul.<sup>83</sup>

The greatest number of sheep fed in this area were handled from 1895 to about 1903. Thereafter the business began to break up because the farmers learned the feeding value of wheat screenings, and bid against the big feeders until the price levels rose and the costs could no longer be met by the latter. Soon the price of screenings completely put the western feeder out of business (1905 to 1907).

Only at South St. Paul did the feeding continue longer. The 1904 annual report of the Stockyards showed ninety-two winter feeding sheds and barns with a capacity of 110,000 head, a sheep dipping plant, a shearing plant of twenty-seven machines capable of handling twenty-five hundred head daily, and nearly twice as many applications as there was feeding space available. The New Brighton Yards were taken over by the Minnesota Transfer Company, and were closed in 1899-1900.

#### THE RED RIVER VALLEY

While wethers were run on the wheat fields of the Red River Valley in North Dakota and Minnesota during the eighties and nineties, most feeders did not believe that lambs could be handled satisfactorily. From 1905 to 1930 no trailing occurred, while rail shipments were practically at a standstill. The season of 1930 produced good crops in the valley, feed was plentiful (corn, oats, barley, alfalfa, sweet clover, prairie hay,

and beet tops), and prices were low, both for grain and lambs. The initiative was taken by a transcontinental railroad and a national packer,<sup>84</sup> aided by the Greater North Dakota Association and the North Dakota Agricultural College. Facilities were provided so that feeders could make outright purchases of western lambs, but others who were unwilling to assume the risks of ownership made feeding contracts. About a hundred thousand lambs were brought into the Valley under this plan, and experts from the participating organizations provided supervision and advice. Fortunately almost every one of the feeders made money, and the business thus started grew rapidly, numbers doubling in the fall of 1931.

Some interesting differences developed in the first year between the farmers who purchased outright and those who fed on contract. The former obtained average daily gains of .187 pounds and net returns of \$2.58 per head to pay feed and labor costs and interest on investment. The corresponding figures for the contract feeders were .162 pounds and \$1.34 respectively.<sup>85</sup> Evidently the men willing to hazard ownership were more skillful feeders, though very few of them had previous experience.

Still more striking in making the differences was the fact that the outright purchaser had to stand all the death loss, buying expense, shrink, freight, marketing expense, interest on his money and risk of market fluctuations, while the contract feeder assumed only the shrink and death loss after it exceeded 2 per cent of the original weight of the lambs.

Feeding operations in the Red River Valley are unusual in that it took an

<sup>83</sup> Crosby, Letter, August 8, 1940.

<sup>84</sup> The Northern Pacific Railway and Armour and Company.

<sup>85</sup> A. J. Dexter, *Sixty Farmers Fatten Range Lambs*, 4-7.

outside stimulus to make the farmers and feeders appreciate their natural advantages, after a quarter century had elapsed without sheep. In ten years the valley handled a third to a half million lambs annually and a strong feeders' association developed.

#### OTHER FEEDING AREAS

The regions feeding lambs always shift as economic and transportation conditions change. Since 1920 there has been a big increase in lamb feeding in northwestern Iowa, and the initiation of a new practice each fall of grazing Texan and New Mexican lambs on the winter wheatfields of Kansas and Oklahoma. All of the lambs show a good gain. The fat ones are sorted off in December and early January for slaughter at the larger packing centers, while those that are still unfinished move into dry-lots in Colorado, Nebraska, Kansas, Missouri, and Iowa for final fattening. This has proved to be a highly economical method of finishing a third to two-thirds of southwestern lambs.

Lamb feeding has increased in California as new feedstuffs have become available, but largely by professional feeders. In the state of Washington such developments have been rapid, too—especially in the so-called "Inland Empire." William D. Hislop of Spokane has fed as many as a hundred thousand head in a single season, while James

Richardson of Hooper, Peter McRae of Hooper, and V. O. McWhorter of Yakima fed from five to twenty-five thousand head annually.

In the Southwest, feeding operations are conducted in both the Gila and Salt River valleys of Arizona, the Pecos River Valley of New Mexico (around Roswell and up the Black River toward Carlsbad where the Crawford Smith Ranch feeds ten to fifteen thousand lambs), and various sections of Texas between Fort Worth and San Angelo. The Arizona country feeds about forty thousand lambs annually; the New Mexico region from forty to a hundred thousand, and the Texas district from a hundred to two hundred fifty thousand head. Most of this development has taken place since 1930.

\* \* \*

Originating in an attempt to bring the western-bred sheep and the eastern-grown feed together, the commercial lamb-feeding industry has not only absorbed the task of supplying the market with dressed lamb when milk lambs were not available, but also regularly furnishes a third of the lamb carcasses dressed under federal inspection. Much of its growth was made possible by the development of irrigation, the increased raising of alfalfa and barley permitted thereby, and the establishment of the sugar beet factories with their by-products of beet tops and beet pulp.

*Follow me out where the . . . (gray flocks) graze,  
Where the morning shadows fall,  
On the far dim trail of the outland ways  
That lead through the chapparal.*

—Henry Herbert Knibbs, "The Lone Red Rock"

\* 17 \*

## The Rise of Texas

SHEEP husbandry in Texas represents a rigorous survival of the fittest. Its modern aspects have been synthesized from a variety of ingredients—Spanish, French, Yankee, English, Scotch, Irish, and German colonists, who introduced sheep of their own kinds with them. Flags of six different nations floated over its soil. Its denizens fought Indians, French, Spanish, and Mexicans, before it earned the right to fly its own Lone Star—a right unsurrendered until it joined the Union of its own choice. Then with an individualism typical of a Texan it seceded, but after this private family fight, again joined the nation.

Texas flockmasters not only struggled through such disquieting experiences, but they had to adjust to prejudices of a more complicated nature. Cattlemen abhorred sheep, gringos looked down on greasers, southerners hated northerners, pioneers before the Civil War despised newcomers, and Protestants and Catholics were intolerant of each other. Texan emotions were weathered in an atmosphere that was never peaceful, and seldom relaxing.

The Lone Star reached a volume of ovine production above other states when its flocks were able to lie down with their natural competitors. Bands of sheep, herds of goats, and strings of cattle proved they could occupy the same range, drink from the same waterholes and, in the absence of human jealousies, cooperate as readily as they competed.

When this situation developed, Texas surpassed every other state in the Union in numbers of each species.

\* \* \*

Orderly government soon overcame the chaotic conditions inherited from the Wars for Independence and with Mexico. The agricultural attractions of Texas stimulated movement from all parts of the Old South. As early as 1850 a Louisiana newspaper<sup>1</sup> reported that in six weeks, 343 families had passed through the town en route to Texas. Their states of origin, in order of importance, were Alabama, Mississippi, Tennessee, Arkansas, Georgia, Kentucky, Louisiana, Virginia, North Carolina, and Missouri. Rumors of the productive lands in Texas also reached the northeast as the fifties opened, and colonization became very rapid by the latter part of the decade. Gradually the frontiers moved northward and westward.

Improved sheep entered the area south of a line defined roughly by the modern cities of Marshall, Corsicana, Waco, Austin, Boerne, and Eagle Pass. Conversion to the range type, rather than the farm type of sheep production, began with the drives of grade and purebred Merinos conducted from the middle Mississippi Valley during the five years preceding the Civil War. The

<sup>1</sup> *The Crescent*, New Orleans, Louisiana, December 19, 1850, quotes the *Caddo Gazette*.

flocks of sheep left over from Spanish days were high in *churro* blood, although near Austin's colony there was still some evidence of sheep from New England. In the vicinity of New Braunfels, traces of German imports through Prince de Solms' efforts also remained. Near San Antonio were dilapidated remnants of the old Spanish Missions, and Olmsted wrote:

One of the missions is a complete ruin, the others afford shelter to Mexican occupants, who ply their trades and herd their cattle and sheep in the old cells and courts. . . . We saw some large herds in the finest condition (just before reaching San Antonio) and it seemed to us the richest grazing district for cattle or sheep we had yet traversed. As we got nearer San Antonio we passed a greater number of Mexican ranches than we had before seen.<sup>3</sup>

However, these were a relic of days gone by, and their decadence continued under the pressure of the incoming Americans, English, Scotch, and Germans. Many New Englanders settled around Waco, the English and Scotch around San Antonio, while the Germans pushed into the Boerne-Fredericksburg region. There was nothing exclusive in any movement, and a plentiful supply of immigrants from Kentucky, Tennessee, Ohio, Michigan, and Illinois was sprinkled among the settlers. Most of them introduced their own particular kind of sheep, and both grades and purebreds of the Spanish, American, Saxon, Silesian, and French Merinos accompanied them, as well as occasional bands of mutton ancestry. The commercial stock of the state was still Spanish, however, and provided the foundation of all production.

#### THE FIFTIES

Of the American immigrants to Texas prior to the Civil War, those who took up stock raising became predominantly interested in cattle if they came from the southern states, and in sheep if they

came from the North. A partial cause of this distinction lay in lack of experience with sheep production in the Old South. But northern support of the wool industry was stimulated by George W. Kendall<sup>4</sup> of the *New Orleans Picayune*, whose letters descriptive of ovine opportunities in Texas were reprinted in northern newspapers. His efforts in behalf of Texas are less familiar to modern readers than those of Thomas O. Larkin for California, but his success was far greater when measured by results for the sheep industry.

Kendall spent large sums of his personal money answering inquiries.<sup>5</sup> One letter, signed with the pen name of "Acorn" and published in September, 1857, in the *Boston Post*, brought an avalanche of inquiries about "the climate of Texas, the soil, (and) the best location for raising sheep and other stock." His replies cost him in cash more than one hundred dollars during the four months immediately following the publication of the "Acorn" letter,<sup>6</sup> with no reward for the time he donated.

Two types of sheep movement developed—great overland drives of flocks into the new country, for sale on a speculative basis after spending a winter in southern Missouri or Arkansas; and small drives of good quality animals by farmers or breeders to establish on their own farms. Most of the first class came from the Midwest—Illinois, Michigan, and Ohio—while the second was drawn from New England and New York. Some of this latter group located temporarily in other states before Texas was reached.

Such an individual was John M. Stephens of Vermont, who spent several

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<sup>3</sup> Frederick S. Olmsted, *A Journey Through Texas*, 155, 270-71.

<sup>4</sup> Fayette Copeland, *Kendall of the Picayune*, 266-67, 285-87.

<sup>5</sup> *Ibid.*, 285-87.

<sup>6</sup> *Ibid.*, 286.

years in Mississippi, but who succumbed to the lure of Texas in 1859. The greeting extended to his flock was not hospitable. Mrs. Stephens wrote from Springfield, Texas (east of Waco), to relatives back in Vermont:

We arrived at Mr. Waller's just four weeks from the time we left Granada. . . . It was very pleasant weather when we arrived here; but we have had rain and snow since, and such cold that some sheep, hogs, and cattle are frozen. Such a time, I suppose, was never known in Texas. The snow is not quite gone and this is the twelfth day since it fell. . . . We have not had any news from Collins about our sheep since we arrived—feel rather uneasy about them in this cold weather.<sup>6</sup>

Farming operations and cotton culture forced most of the sheepmen out of the east Texas region by the close of the last century.

#### GEORGE WILKINS KENDALL

Expansion of flocks lay south of the foregoing district. From the Galveston region they pushed past Houston towards San Antonio, or to the inviting district surrounding Boerne and Fredericksburg. Kendall himself led to this area and established operations by the mid-fifties. Just what factor turned this highly-trained journalist to sheep production is not discoverable, but his first trip into San Antonio and his experiences with the Texan-Santa Fe expedition convinced him of their suitability for the Southwest.

Kendall launched his business in 1850 with three partners—his colleague of the *Picayune*, A. M. Holbrook; a Mexican War friend, Captain Forbes Britton, whom he had met when a war correspondent with General Winfield Scott; and a Vermonter, W. A. Weed, whom he knew in Mexico at the time of the Texan-Santa Fe expedition.<sup>7</sup> They purchased a flock of Mexican ewes, and added some purebred Merino rams from Vermont.

In September, 1852, Kendall hired in Scotland a resourceful shepherd, Joe

Tait, who laid the foundations for his success in Merinos. He also imported four Scotch collies whose progeny were extremely helpful throughout his sheep operations, as well as two fine Leicester rams that could not adapt themselves to Texas conditions. This flock was located near the Nueces River, but the water was not suitable. Kendall finally purchased a property seven miles west of New Braunfels, which he described as "a pleasant and verdant valley surrounded on all sides by rough, rocky and rugged mountains." The tract was "admirably adapted for raising both sheep and horses."<sup>8</sup>

Before he could move to the new site an unprecedented blizzard swept the range, and many of his sheep froze to death in the severe sleet and snow. When spring arrived an epidemic of liver-rot took half of what was left.<sup>9</sup> Of twenty-four purebred American and French Merinos that were shipped to the Nueces ranch in 1852, only two survived the hazards of storm, disease, and prairie fire. But in six years, hundreds of their descendants were grazing on his ranches.<sup>10</sup>

In 1853 Kendall was in Europe. He attended the spring auctions at Rambouillet, and purchased at prices of 250 to 600 francs (\$50 to \$120) a number of the best bred animals for shipment to Texas. When he returned, late in November, Weed had the flock properly established, with one band of over two thousand head, and a second of seven hundred, almost entirely lambs. He built

<sup>6</sup> Rhoda Stephens (Mrs. John M.), Letter from Springfield, Texas, to "Ever Dear Mother, Brothers and Sisters" in Vermont, December 12, 1859, in files of the *Texas Sheep and Goat Raiser*, San Angelo, Texas.

<sup>7</sup> Copeland, *Kendall of the Picayune*, 253.

<sup>8</sup> *Ibid.*, 256, 257, 260.

<sup>9</sup> George W. Kendall, *Sheep Raising in the South*, 166-70.

<sup>10</sup> Copeland, *Kendall of the Picayune*, 287.

sheep folds, pens, and shelters, plowed land for corn, and put his sheep operations on a more permanent basis than anyone in that section of Texas. Many of his early lambs were lost in another blizzard which struck on January 7, 1854.

In 1855 Kendall's first flock was moved forty miles westward to a four thousand acre tract of land at Post Oak Springs, six miles east of Boerne, which he had purchased ten years earlier from the government of the Texas Republic. Indian forays were frequent and deadly, but during the next twelve years, or until his death, his determined spirit continued to build up flocks at this location. His arrival in 1855 was disheartening. A prairie fire had destroyed his sheds and sheep camp, and some thirty sheep with badly burned feet were hobbling on their knees, trying to garner what remained of the scorched grass stubble. But about half of his flocks had survived, among them his chief Merino ram, "Old Poll," a hardy old fellow that had also lived through the bitter blizzard and the liver-rot infestation of 1852-53.

His ranch was even more subject to Indian raids than pioneer Boerne, six miles west, and his shepherds maintained a system of armed sentries every night. In 1856 he wrote the *Picayune*<sup>11</sup> that contrary to the poetic description of shepherds bearing "crooks on their shoulders and perhaps lutes under their arms," his "gentle folk who tended the flocks" were individually ready to stand off a full-fledged Comanche raid. For each band of eight hundred sheep he provided a herder with a double-barreled gun, a Bowie knife, and a Colt's six-shooter, and encouraged his shepherds to wear as ferocious-looking beards and moustaches as possible.

Kendall's use of good Merinos on the Mexican ewes rewarded him amply. His

flocks expanded as his blood improved, so the gain in quality is difficult to measure. But in 1856 he sheared twenty-eight hundred pounds of wool; in 1857, fifty-one hundred pounds; and in 1858, nine thousand pounds. In this period his flocks doubled, however.<sup>12</sup> Up to 1860 he sold his clip in Atlanta. But in 1861, after Fort Sumter, he loaded eighteen thousand pounds of wool onto Mexican *carretas* and delivered it in New Orleans, despite the Federal blockade. In 1863 he sold the previous year's clip (nineteen thousand pounds) to an agent in San Antonio, from which point it was freighted to Eagle Pass and marketed in Mexico. The 1863 clip remained in storage for months, and the 1864 clip was not sold until the 1865 wool was shorn.

Just before the Civil War, a big demand existed for his grade rams. Between 1856 and 1861 he sold bucks all over the state, receiving \$50 for lambs and as much as \$250 for a stud ram.<sup>13</sup> Even in 1862 he sold more than three hundred grade rams profitably into Mexico, despite the petty red-tape annoyances in meeting the regulations of the Confederate and Mexican governments. When his friends tried to "run" him for governor in 1859, the *Galveston News* insisted Kendall had "raised a monument to himself through the introduction of fine-fleeced sheep to Texas, that would outlive all politicians."<sup>14</sup> With typical farsightedness he denied his candidacy. But in 1862, Kendall County was carved from Blanco County, and named for him by order of the legislature. His neighboring Boerne was created the county seat.

Postwar conditions improved the wool

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<sup>11</sup> Copeland, *Kendall of the Picayune*, 282-83.

<sup>12</sup> *Ibid.*, 287.

<sup>13</sup> *Ibid.*

<sup>14</sup> *Galveston (Texas) News*, May 19, 1859.

business, and Kendall's prestige led to close relations between himself and Dr. Henry S. Randall, New York's leading sheep authority and long-term president of the National Wool Growers' Association. However, the indebtedness amassed during the war, the tyrannies of the "carpet bag" government, the constant defense against the multiplying Long-horn herds that ravaged his fields and depleted his water, the continued terror of the Indian raids, several severe storms, and the social and economic problems involved in the backwash from freeing the slaves, all combined into an overwhelming burden for him. By super-human effort he saved his ranch and flocks, but he sacrificed his life. October 21, 1867, marked the passing of the greatest sheepman Texas ever claimed.

#### THE CIVIL WAR PERIOD

As has always been the case, the War brought tribulation to wool growers. The loss of the markets dammed up the clip, which was the chief source of income to the ranchers. Most of the ranch employes were Mexicans, and Confederate greenbacks were unacceptable substitutes for gold and silver.<sup>15</sup> Retaining these shepherds was a vital problem. When irresponsible herders abandoned their bands, flock losses were overwhelming. Moreover, the inability of the state government to control the Indians led to a period of terrorism on the Texan frontier which still makes old-timers shudder. Herders were ambushed and slaughtered under avalanches of arrows.<sup>16</sup> Bands were left to stray, or were run off for food. Some operators lost their entire flocks and invested capital.

Even the weather was unfair. Both drouth and storms tormented the harassed flockmaster. The lack of rain became so acute in March, 1864, that creeks disappeared, and grass and feed crops withered. "A crop dries up and

makes no moan, but starving lambs die uttering the most plaintive cries."<sup>17</sup> Great herds of wild cattle flocked into the valleys—destroying planted fields, tearing down fences, and tramping the last sources of water into bogs which soon became half-dry mud holes, and then caked-over wastes. By 1865 the most farsighted ranchers were benefiting from small irrigation works which they developed for their gardens, but they could never be certain that their fences would hold off hungry and thirsty Longhorns.

The year 1864 opened with cutting cold, and a snow and sleet storm that confined everyone indoors on New Year's Eve.<sup>18</sup> January continued with a norther and a chilling rain that intensified the flockmaster's burdens. The end of February brought heavy snows, whirling drifts, and freezing cold that created disasters more severe than any sustained before or since. Sheep were frozen, and bodies of numerous shepherds, chilled to death protecting their charges, were found only after three to five day searches.

From a disease standpoint the great problem was scab. Both the German immigrants and those from the northeastern United States were familiar with the contemporary treatments, using direct application of grease, or of lime and sulphur, to the lesions. But few of them knew anything of dipping. The winter of 1860–61 was hard, and many sheep owners were having their first scab problems. On January 15, 1861, Kendall's premonition of the scourge was recorded: "Saw Mr. Green; his sheep scattered,

<sup>15</sup> Copeland, *Kendall of the Picayune*, 297, 300.

<sup>16</sup> *Ibid.*, 297–98.

<sup>17</sup> *Ibid.*, 301.

<sup>18</sup> *Ibid.*, 301, quotes Kendall.

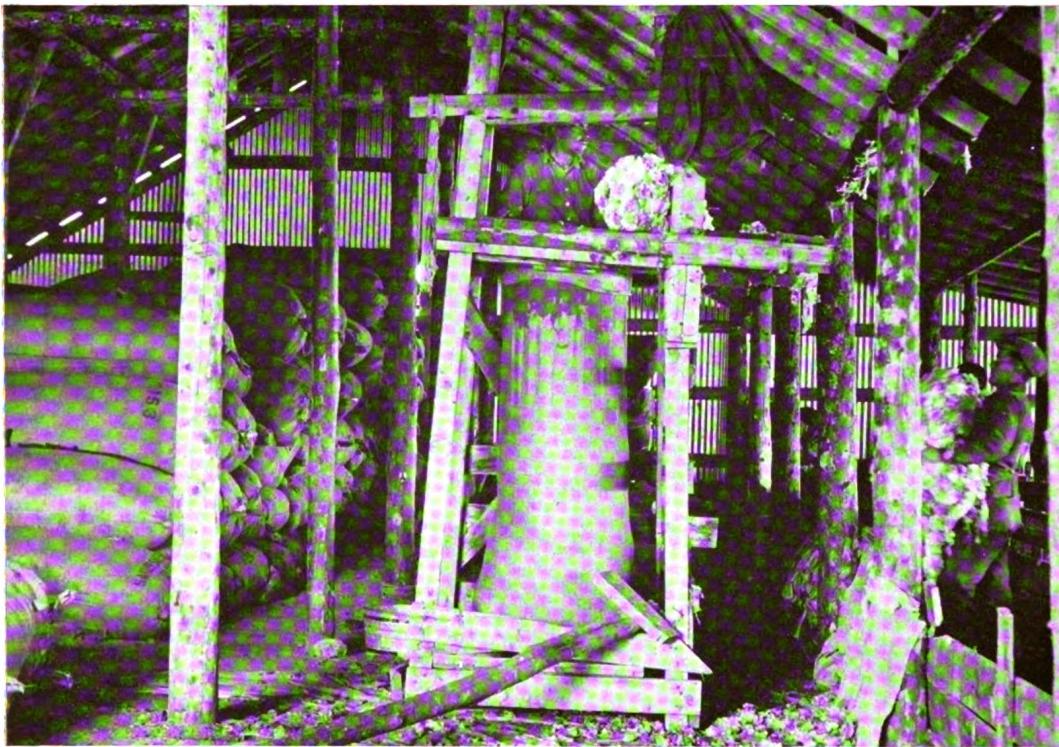


FIG. 90a—Sacking fleeces (p. 421). Note "trumper" at top of sack, and wrangler bringing fleece. (Belden Photo.)



FIG. 90b—Loading wool sacks at a Wyoming ranch (p. 425). (Belden Photo.)



FIG. 91—Hauling wool by wagon from a Wyoming ranch (p. 425). (Belden Photo.)



FIG. 92—Delivering wool at a Casper, Wyoming, warehouse in the early nineties (p. 425). Note method of hauling. (Courtesy Mrs. A. J. Cunningham.)

and many with the scab. A most annoying matter."<sup>19</sup>

With the second year of the War and the capture of the Mississippi River by the Federals, which isolated Texas, Arkansas, and Louisiana from the rest of the South, disease problems intensified. Some of the best sheep raisers began to grow tobacco for a cash crop, and utilized the liquid solutions, made from the stalks, for curative purposes. Kendall initiated large scale dipping operations, overcoming all of the handicaps imposed by war. He fought the disease through October, 1864, without success, and then decided that the whole flock must be dipped, regardless of cost. He spent \$150 for sulphur and \$11.50 for extra labor, in addition to his own work and that of eight hands. Wood had to be cut, and rock hauled to burn for lye and lime. His preparations continued through December, and Christmas was just an unwelcome interruption of work. Most of the Negroes had colds from exposure, but he kept them on the job. One of them was sent to Boerne to borrow kettles and barrels for the dipping, another to haul ashes for the hopper.

By January 5 he was ready to start dipping. In his eagerness to do the job thoroughly, he added too much lye to the mixture, and by night his helpers' hands were bleeding. He changed his formula but two had to quit. The work continued despite a norther which blew in with a cold rain. It was January 21 before the five thousand sheep were dipped, and dozens of them died in the bitter weather.<sup>20</sup>

These misadventures led to more careful planning after the spring shearing, and the construction of what seems to have been the first dipping vat for sheep in the state of Texas. When the shearing was over, it was obvious that dipping must begin again immediately. Kendall

determined to be better prepared than on his first attempt, and hired a stone mason to build a dipping vat and platform. After numerous delays the vat was completed, but when the work started it was found to leak. The mason had to serve a term on the jury before he could make repairs.

Finally the vat was leak-proof and Kendall was jubilant as the work of dipping proceeded so swiftly. The sheep were driven up a chute into the vat, then onto a platform where the excess of the solution drained off the animals and back into the vat. He dipped one flock after another, and was so delighted with the results that he sent word to his neighbors to drive their flocks over for dipping.<sup>21</sup>

Response to the postwar demand for wool in the South was immediate. Outlets for sale were available for the first time in years. By fall, wool was selling for twenty-four cents a pound in Texas. It even became worth while to shear each wether slaughtered for daily meat supply on the sheep ranches. Scab became less of a problem as remedies again became available on the market.

#### SAN ANTONIO SHEEP RANCHES

The immediate postwar period stimulated sheep activity around San Antonio and south central Texas. Swarms of immigrants from both Great Britain and Germany poured into the newly-available district, and a large proportion engaged in the livestock industry. A most interesting class of Britishers was found in the "remittance men"—younger sons of good families who ransacked the West for fame and fortune in the livestock industry or mining. These youngsters received regular allowances from their families, hence the nickname. From 1866 to 1900 they were typical characters along our advancing

<sup>19</sup> Copeland, *Kendall of the Picayune*, 294, quotes Kendall.

<sup>20</sup> *Ibid.*, 302-3.

<sup>21</sup> *Ibid.*, 304.

frontiers. Their situation, on the other hand, if they remained in Great Britain was critical.

Every year it becomes more clear that the openings for young men in our upper and middle classes are quite insufficient. The learned professions, the Army and Navy, and the Civil Service are besieged by candidates, of whom there are a dozen for every vacancy. . . . The pressure of this state of things has been driving numbers of our boys to the Colonies and America for some years past, and must do so more and more in those which are coming. It would be well . . . if the nation took the matter in hand, and treated colonization scientifically with a view to making the most of our splendid material. . . . The life must be one of severe physical labor for years, amidst surroundings which will try their mettle to the utmost. . . . If anyone has reason to doubt himself on this point . . . let him by all means stop where he is. The back woods and prairies are no place for him, and he will only bring discredit on himself and his country by adding one more to the long roll of young Englishmen who drift away to gambling and drinking saloons, which unhappily are to be found in abundance on the outskirts of civilization and in every new country under the sun.<sup>22</sup>

The Civil War accentuated the normal conflict of interest between the sheepmen and cattlemen in Texas, but even before the war cattlemen had concluded that sheep herding was no job for a "white" man. It was still associated with Mexicans after the Texans took over cattle ranching. Only in the region southwest of San Antonio toward the Rio Grande did sheep maintain an ascendancy over cattle.<sup>23</sup>

Sheepmen worked on foot, or if mounted, rode quietly with a loose rein. The cowboy dashed about, covered with costume and filled with the joy of living, in constant contact with his horse's mouth. This contrast damned the sheepman's occupation, and few Texans were willing to face the stigma of "foolin' with sheep." But the immigration movements from Europe brought many men impervious to the social opinions current in Texas. Winifred Kupper enjoyed a little ~~railery~~:

Where the black condemnation of the sheepman was something the ordinary man could not face, it held no terror for the Englishman. Safe in the consciousness that he *was* an Englishman . . . he could indulge with impunity in an occupation conceded to be lower than any other on earth, because, after all, was he not *an Englishman*, and didn't he feel a tinge of pity for anyone who wasn't, even though that one be a lordly cattle king? The fact that in Texas the intelligence of the sheep herder was rated lower than that of the mule and jackrabbit deterred him not a whit. . . . He came to the Southwest, he raised sheep, and he made good, and he was happy enough for the while, for was he not an *Englishman*?<sup>24</sup>

Fortunately Texas found a broad sprinkling of competent young Britishers in this period who contributed greatly to the growing livestock interests. But to most Texans, wool growing was understood only superficially. A letter from William Hughes to his family in England describes them well:

There are a few men in the sheep business who have a *name*, and sell their sheep at \$5 to \$15; whereas men like W— get only \$1 to \$2½; and they say, "Oh, it's just this-away, y'know, they get a name and then they get big prices, that's where it is!" They casually admit that they (the big men) had some good rams from somewhere and improved their stock; but they utterly fail to see the connection between this and the "name" they "get." . . . Sheepmen here are, for the most part, of two kinds: the men like W— who work, and who never make any improvements; and the men who seldom see their ranches, and have herders and they could make improvements if they were only to attend to it themselves. The men who make it pay are the ones who combine the two kinds.<sup>25</sup>

Sheep routine for that day is still familiar—up at five A.M., breakfast, "then the sheep start at seven and are out till twelve, then dinner; then start at one-thirty and in at five-thirty; tea at six, and

<sup>22</sup> Thomas Hughes, *Gone to Texas: Letters From Our Boys*, xi-xiii.

<sup>23</sup> Gordon, "Report on Cattle, Sheep, and Swine," *Tenth United States Census*, III, 981.

<sup>24</sup> Winifred Thalman Kupper, "Folk Characters of the Sheep Industry," *The Cattleman*, 24, No. 10 (March, 1940): 89, 90, 91.

<sup>25</sup> Hughes, *Gone to Texas*, 8, 9, 11.

'in bed' by seven-thirty, when . . . (we) talk."<sup>26</sup>

Typical of the most successful sheep ranches was the great Callahan ranch, near Encinal, maintaining more than one hundred thousand sheep. A range sixty miles square was traversed each year by the herders, and operations were so extensive that each *caporal* had about eighteen thousand sheep under his direct charge. Except for the *major domo*, all employes were Mexican, and the Spanish system of management was followed in exact detail.<sup>27</sup>

#### SHEEP DRIVING IN TEXAS

Sheep driving continued throughout the seventies. Flocks were trailed from the North for breeders, and other flocks were brought from the South for mutton. Even at this date, long before the establishment of central stockyards, San Antonio and Fort Worth were desirable markets:<sup>28</sup>

I find that northern sheep men all come south to buy. The central market is San Antonio, and the southern breeders bring their cattle there, and the northerners . . . come there to buy. One of the three (who bought from the writer) told me that some of the sheep they had just paid a dollar-twenty-five cents for, were worth two dollars-fifty cents up north.<sup>29</sup>

In 1879 Gordon<sup>30</sup> shows that fifteen thousand head were driven into Texas from New Mexico and more than a hundred thousand were introduced from Old Mexico. By the end of the decade, imports from the Mississippi Valley were confined to rail shipments and nearly all of the animals sent were registered stock.

#### UP THE GUADALUPE

Many of the immigrant families that came with Prince de Solms in 1845, or of the German, Austrian, and Alsatian families that followed, projected themselves into the sheep industry. Even before the Civil War they had spread

into the area surrounding Boerne and they formed the principal settlers in new Kendall County when it was established in 1862. Their natural avenue of western travel was up the Guadalupe River, and Americans and English settling among them mentioned their German neighbors more frequently than any others. During the sixties and seventies they covered the area now marked by Guadalupe, Gillespie, Comal, Fayette, Washington, Colorado, Austin, Mason, Kendall, Kimble, Kerr, Blanco, and San Saba counties.

Most influential in stimulating success among these sheep raisers was an Alsatian, Captain Charles Schreiner<sup>31</sup> of Kerrville. In 1859 he had located in Kerr County, then infested with Indians and wild animals, but he immediately engaged in sheep production. During the Civil War he neglected his flocks to serve in the Confederate Army, but he returned to this enterprise when discharged. His bands were gradually built up to nearly forty thousand head, mostly grade Delaines, which Captain Schreiner felt were more hardy in the brushy, hilly country.

The ranch finally included more than six hundred thousand acres in Edwards, Kerr, and Kimble counties. His manager was his nephew, Robert Real. Early marketing facilities for wool in the Guadalupe region were inadequate, and Captain Schreiner was one of two Texans who pioneered warehouses where the wool could be stored until favorable

<sup>26</sup> Hughes, *Gone to Texas*, 15.

<sup>27</sup> Gordon, "Report on Cattle, Sheep, and Swine," *Tenth United States Census*, III, 980, 981.

<sup>28</sup> Hughes, *Gone to Texas*, 15.

<sup>29</sup> *Ibid.*, 16.

<sup>30</sup> Gordon, "Report on Cattle, Sheep, and Swine," *Tenth United States Census*, III, 985.

<sup>31</sup> See Biographical Appendix, Captain Charles Schreiner.

marketing conditions prevailed. His sound judgment in financing young sheepmen combined with his other operations to establish a large private fortune.

Most distinguished of the German operators was Caspar Real.<sup>32</sup> He also went to Kerrville in 1859, and married Captain Schreiner's sister. Though intimate in their business relations, Schreiner and Real were never partners. Real's ranch headquarters were on Turtle Creek, six miles from Kerrville. His acreage was not as great as Schreiner's nor were his flocks quite as large, but he paid exceptional attention to quality, importing fine Delaines from Ohio. These were hauled in wagons to the ranch from the steamer at Indianola, and purebred flocks were maintained as well as crossbreds based on the Mexican blood. The purebreds have been carried forward to this day, first under the management of Caspar's son, Arthur Real, and then of his grandson, also named Caspar.

A second family of German descent that attained great prominence was the Steilers. Herman Steiler<sup>33</sup> came to Kendall County as a boy and got his early training under Captain Schreiner. In the late seventies he took up three sections in the hill country near Comfort, and started sheep production. His business expanded rapidly, and when he retired in 1917 he owned twenty-five sections and large flocks of sheep and Angora goats. Four of his sons continued the business: Walter, Fritz, and Adolf, near Comfort; and August at Johnson City. The Steilers, too, preferred Delaines, and handled thousands of ewes. In 1921, Adolf Steiler obtained a flock of eight hundred Angora goats, which he operated in conjunction with his sheep. In 1940 his goat flock was averaging around eighteen thousand

head. Adolf Steiler was operating forty-five thousand acres in Kendall, Kimble, Kerr, Blanco, Gillespie, and San Saba counties. He was one of the most active figures in the Texas Sheep and Goat Raisers' Association, serving as director of that organization for many years, as well as being vice-president twice.

One of the first to drive a California flock into Texas was an Austrian, Karl Albert Anton von Schauer,<sup>34</sup> of Ozona in Crockett County. In 1859 he started a band of approximately three thousand head overland from California to Texas, and used three years for the trip. His flocks were ranged principally in Crockett and Tom Green counties. He grazed them on his own patented land, placing bands of about fifteen hundred head in charge of a single herder. His camps were moved about twice a month. Throughout most of his operations he averaged running about thirty thousand head.

Toward the close of the century von Schauer began to shift to fenced pastures. These ranged from two to ten sections, and sheep were turned into each pasture

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<sup>32</sup> Caspar Real was born in Germany and came to Texas in the early fifties, as a young man. In the middle of the decade he married Captain Schreiner's sister, and their son Arthur was born in 1859. Another son, Robert, was Captain Schreiner's ranch manager, and still another son, Julius, attained the distinction of being the only Republican senator ever to serve in the state legislature in Austin, where he served fourteen years. The original ranch is still in the family and is managed by Arthur's son, Caspar Real.

<sup>33</sup> Captain Herman Steiler was born in Germany in 1853, and came to Texas as a child of three. When ten years old his family settled in Kendall County and Herman Steiler got his early sheep training under Captain Schreiner. In 1878 he married a daughter of Caspar Real, who was also a niece of Captain Schreiner. Steiler received his military title during the Indian troubles following the Civil War when he was captain of the volunteer defense organization of his community.

<sup>34</sup> Charles E. Schauer, Del Rio, Texas. Letters to author, December 23, 1940, and January 10, 1941. See Biographical Appendix.

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at the rate of 200 to 250 head per section. Schauer preferred Rambouillet sheep as he was in a more level country than many other growers and could handle heavier animals. One faculty made him well known throughout the entire Texas sheep region—he could put sheep through a cutting chute and keep accurate count on both sorts. Schauer was an early pioneer on the Edwards Plateau.

#### THE "HAT A RANCH"

Farthest west of the large sheep operators, before the end of the century, was Arthur G. Anderson<sup>35</sup> of the "Hat A Ranch" in Pecos County. Following the Civil War, young Anderson took up land in Callahan and Taylor counties. Dissatisfaction with the quality of sheep he was able to obtain in Texas turned him toward California. Starting on horseback from San Antonio, he rode alone the entire distance to the Coast and purchased a flock of French Merinos, then rising rapidly in popularity there. These were trailed back to his ranch by way of Salt Lake City and western Colorado. Two years were required for the trip, but this drive provided the foundation for his great flock of Rambouilletts which in later years fluctuated between twenty and forty thousand head.

Anderson's second base of operation was near Colorado City, in present-day Mitchell County. While here he undertook a second trip to California, but suffered a most irritating experience returning. The Southern Pacific Railroad had been built as far east as Alpine at that time, so he shipped to that point and started driving his sheep across the great cattle country in the Davis Mountains. He was arrested and taken to Fort Davis, where he was ordered to pay a fine for trailing sheep in that region.

Anderson refused to acknowledge this a misdemeanor, so the local officials

placed him in a dry cistern under the court house (the town had no jail) until he would pay the fine assessed. Each morning he was removed from the cistern and payment was demanded, but he was adamant in his refusal. At the end of a week, a compromise was reached whereby he agreed to give bond for five hundred dollars and appear later for trial. His California sheep had been thoroughly scattered by the cowboys, but he gathered most of them and completed the trip. Needless to say, the bond was forfeited.

Following the blizzard of 1888 that caused such terrific losses of sheep and cattle all over the Texas range, Anderson decided that 125 sections of land were insufficient. He sold them to purchase 225 sections in Pecos County, which became his "Hat A Ranch." Anderson made various trips to Vermont, Ohio, and California for good rams, though during his last twenty years he purchased almost all of his bucks from Bullard Brothers and the Kimble flock in California. The quality of his sheep developed to such a degree that he sold annually between one and two thousand bucks in Texas, New Mexico, Old Mexico, and finally in Australia. During the drouths of 1900 and 1901, he achieved great notoriety when for two successive years he killed his entire lamb crop, about twenty thousand lambs each, to save his best breeding ewes.

Anderson practiced seasonal trailering, moving from his ranch lands north of Sterling City toward the Big Lake and Ozona country, and later toward the Pecos. He always preceded his flock, prospecting for the best forage available. His transportation was a two-wheeled gig, and his supplies were carried in a sack containing beaten biscuit and dry

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<sup>35</sup> See Biographical Appendix, Arthur G. Anderson.

salt pork. These lonely jaunts across the prairies usually took two to three weeks.

#### FENCE CUTTING

In 1881 the Texas Legislature passed a law forbidding grazing sheep on land belonging to another without the owner's consent. Such a law was unjust, since owners of cattle and horses were not legislated against in the same manner. Most sheepmen were hard hit, as it became necessary for them to buy the land on which they ran their sheep, improve it, and protect it by fencing against cattle and horses. When this money had to be invested, little capital was left with which to buy flocks. The cowman, on the other hand, could put all his money into animals and graze the sheepman's land, provided it was unfenced. This law against the sheepman was never rigidly enforced, though its power was established in 1884 through the acts of a man who herded sheep in Palo Pinto County on land he did not own. He was haled into court and fined twenty dollars, after which he appealed the case. The Supreme Court dismissed his appeal, hence the validity of the law was established.<sup>38</sup>

Most sheep fences of that day were barbed wire, and sheepmen settled down to fencing their range. But in the summer of 1883, a serious epidemic of fence-cutting broke out in practically all parts of the state. It was popularly excused on the ground that it represented a true agrarian sentiment among people of small means, who believed the grass of the prairie was their time-honored heritage and the hope of their children. "As early as 1882 . . . if a sheepman . . . fenced his land with anything but rock, it was ten chances to one that his fence would be burned or cut before a year was past."<sup>37</sup>

Horace Starkweather's pasture wires were cut in early December, 1883, and

his sheepfolds and herders' homes burned, along with two thousand cedar posts piled near his residence.<sup>38</sup> Three weeks later, he had reconstructed a five-wire fence that had rocks piled under the bottom wire for half the length. But thirty miles were cut and scabby sheep turned into his flock. This forced him to dip eight thousand sheep in wintry weather. He traveled to Chicago to obtain a loan, but news reached the bank that five hundred miles of fence had been cut in Texas, including Starkweather's which in the meantime had again been repaired. Naturally the loan appeared too hazardous for a remote banker. C. B. Metcalfe, a sheepman of Tom Green County, won an argument with the owner of a cow outfit that cut four miles of his fence by calling, shotgun at side, on the offender.<sup>39</sup>

The fence-cutting war was not aimed at the sheepman alone. Cattlemen also had their troubles, and all fences, regardless of ownership, were destroyed in many sections. But the sheepman was the principal sufferer, as he alone had to own all the land he used. Fence-cutting was made a felony at a special session of the State Legislature in 1884, and property rights were proportionately strengthened. About a year elapsed after this Act before the cowardly practice disappeared.

#### THE SHIFT TO FENCING

This unfortunate experience with barbed wire brought about a modification in sheep management that developed great economic significance. Fencing as

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<sup>36</sup> *The Daily Gazette*, Fort Worth, Texas, May 18, 1884.

<sup>37</sup> Roy Holt, "The Woes of the Texas Pioneer Sheepman," *The Southwestern Sheep and Goat Raiser*, 2, No. 3 (December, 1940) :60 and 62.

<sup>38</sup> *Ibid.*, 62.

<sup>39</sup> *Ibid.*

a method of controlling the flocks began to be adopted between 1900 and 1910. A few sheep owners erected fences and put their flocks inside. They were thus able to dispense with herders, though they turned some of the best into fence riders and "trouble shooters." Their new duties compared more closely with those of the *caporal* under the old Mexican system of ranching than with those of the *pastore*.

It was soon discovered that the range was more productive under this system, that the sheep spread out better while grazing and did not crop the grass as closely, and that the range herbage recovered more quickly. Also, more sheep could be handled per section, the fleeces were heavier and less dirty, and larger lamb crops were obtained. Texas was the only western sheep state in which this practice could be followed, however, as its rainfall was heavy enough that seasonal shifts in altitude were not essential. There was no Federal land within the borders of the state, and Texans could own their ranges and operate their flocks without the intervention of Federal officials.

The chief problem under the fencing system was protection against wolves. Hunting and trapping reduced losses, but never eradicated them. Only when wolf-proof fencing was adopted, and all wolves and coyotes inside the fence destroyed, was real relief obtained. Today practically none of the large operators retain the herder system.

#### THE EDWARDS PLATEAU

The chief region of sheep production in present-day Texas is the Edwards Plateau, with the industry centering around Kerrville, San Angelo, Sonora, and Del Rio. It comprises all, or portions, of forty-three counties, embracing twenty-two and a half million acres. The region is covered for the most part with

curly mesquite grass, but has a sprinkling of grama, buffalo, needle, and bunch grasses. There are many brushy thickets of live oak, shin oak, mesquite, cedar, sumac, and cat claw, and the sprigs and leaves of these woody plants provide supplementary sustenance for the great flocks of Angora goats that run in the sheep country. Finally, there are many drouth-resistant plants, such as sachuista, sotol, yucca (bear grass), and prickly pear, which are produced extensively in various parts of the Plateau and provide feed during drouth periods.

Before 1877, the sheepmen stuck pretty closely to the watersheds, but with the development of wells, range tanks, and other watering equipment, grazing spread out. During the rainy seasons of the spring and fall, the Indians were accustomed to hunt in this country, and thefts of livestock were frequent, both by Indians and Mexicans. Hence the spread of livestock awaited their control as much as the development of an artificial water supply.

Beginning with the eighties, ovine drives into this area increased. Many sheep came from California, some from Ohio, and others were driven west from Lampasas, Gillespie, McCulloch, and Kimble counties, where sheep had first entered the Plateau. Gordon<sup>40</sup> in 1880 noted that the sheep business between the 100th meridian and the Pecos was in its infancy, but that the region, except for alkaline water in some sections, was well adapted to sheep. Most of the sheep brought in were Rambouilletts, but there were many Delaines as well.<sup>41</sup> Sol Mayer writes:

Some of the early sheepmen located in this country, as far back as 1882 in the southwest part

<sup>40</sup> Gordon, "Report on Cattle, Sheep, and Swine," *Tenth United States Census*, III, 968.

<sup>41</sup> Sol Mayer, San Angelo, Texas. Letter to author, May 2, 1941.

of Tom Green County, were Patterson and Williams, Grinnell, Tweedy and Reynolds, John Munday, and Captain William Turner. Down in what is known as the Edwards Plateau (and the above may also be included in it) were Black and Shannon who were located in the eastern part of Schleicher County near Fort McKavett, John Rae in the western part of Schleicher County, and P. H. Wentworth who was located in the eastern part of Sutton County on the Llano River. The above mentioned were all in the sheep business when I landed in Fort McKavett in 1879. J. M. Taylor, Dan and Alley Cauthorn, O. T. Word, D. C. Ogden, T. D. Newell, J. M. Shannon, H. Knausenberger, J. W. Hagerlund, C. F. Adams, F. Mayer and Sons, and quite a few others, raised sheep in the latter eighties and early nineties in Schleicher, Sutton, and Crockett counties. . . . The first wools we marketed were shipped to T. C. Frost, San Antonio, Texas. Later (our) wools were sold in Kerrville by Charles Schreiner, and also were marketed in San Angelo. The marketing of lambs began about 1900. I loaded the first shipment of lambs from San Angelo in 1899. They sold in Kansas City. However, I do not think very many lambs were shipped out for several years later. Most of the sheepmen of early days did not have any cattle.<sup>42</sup>

Development of the importance of the industry, relative to the state as a whole, follows:

#### PROPORTION OF TOTAL TEXAS SHEEP POPULATION ON EDWARDS PLATEAU

Year	Percentage	Year	Percentage
1880	.22.0	1925	.88.6
1890	.50.6	1930	.86.6
1900	.63.3	1935	.82.7
1910	.83.2*	1940	.79.6
1920	.81.3	1945	.79.1

\* Based on fleeces shorn instead of population.

Obviously the Edwards Plateau reached its greatest importance with reference to the rest of the state in 1925, and since then it has been less influential. This has not been due to a decline in its production but rather to the increase in sheep population to the west and north of the counties usually included in the region. Thirty-seven counties were more or less arbitrarily selected as belonging to the Edwards Plateau.<sup>43</sup>

#### COMPOSITION OF FLOCKS

The proportions of sheep of different ages and classes in Texas have changed only slightly over the years. In 1880 Gordon<sup>44</sup> reported that Texas flocks averaged 45 per cent of ewes, while the Census of 1900 showed 49 per cent. Similarly, in 1880 there was 29 per cent of lambs, while in 1900 there was only 24 per cent. This proportion seems small, as the Census was taken June first each year, but it seems to have been characteristic. In 1880, wethers and rams combined to total 26 per cent of the flocks, while in 1900 they totaled 27 per cent. Because of the fact that wool constitutes a larger relative section of sheep income in Texas than in the northwest states, it has been more profitable to shear the lambs and hold them to older ages before slaughter. Consequently, Texas has a higher percentage of yearlings in her flocks than do other states.

There have been no authentic figures in recent years to show what the proportion of lambs, ewes, and rams are, but in general the proportion of so-called "yearling wethers" varies according to season. In dry years they have to be carried longer than in wet years before they are ready for slaughter, and this fact affects the proportions on April first, the date

<sup>42</sup> Mayer, Letter, May 2, 1941.

<sup>43</sup> The counties included in the Edwards Plateau were:

Bandera	Irion	Pecos
Blanco	Kendall	Reagan
Brewster	Kerr	Runnels
Burnet	Kimble	San Saba
Coke	Kinney	Schleicher
Coleman	Lampasas	Sterling
Concho	Mason	Sutton
Coryell	Maverick	Terrell
Crockett	McCulloch	Tom Green
Edwards	Menard	Upton
Gillespie	Mills	Uvalde
Glasscock	Nolan	Val Verde
Hamilton		

<sup>44</sup> Gordon, "Report on Cattle, Sheep, and Swine," *Tenth United States Census*, III, 984.

of compilation of the last two decennial censuses.

#### THE PANHANDLE

The rise of the Indian power during the Civil War, especially after the battle at Adobe Walls, resulted in the withdrawal into New Mexico of most of the Mexican sheep operators in the Panhandle. A very few returned when the Americans came with cattle, but the friction between American cattlemen and Mexican sheepmen that had been so distressing in the southern part of the state was preserved there. Mexican herders were killed, and in some cases Americans, often the indirect result of the cattle-sheep friction.<sup>45</sup> Most of the Mexican flocks headquartered on the New Mexican side of the line, but a few were on the Tierra Blanca and Canadian.

During the late seventies a former sea captain from Boston, named Torrey, built a good sized house on the bank of the Canadian seven miles upstream from Tascosa. He was reputed to have several thousand sheep and to have maintained a hospitable home with his three daughters as hostesses. It was reported that he had some trouble with the notorious Billy the Kid, but the most interesting tradition concerning him dealt with rattlesnakes. Some native, preying on his tenderfoot proclivities, explained that burros would kill rattlesnakes. Following this advice, he purchased a bunch of burros from a "nester" near there, only to learn later that the two were just trying to unload some donkeys on him.<sup>46</sup>

About 1880 an excellent flock of fifteen thousand head of Merinos was maintained twenty-five miles west of Tascosa (the cow capital of the Panhandle in Oldham County) by A. B. Legard.<sup>47</sup> His flock was based on ewes imported from Missouri, but he purchased the best quality of Spanish Merino rams in Vermont, New York, and Michigan. In

1880 his average clip was four and one-half pounds per head.

Wages for Mexican herders were then reported to be \$15 monthly, and board averaged to cost \$4.75 per month.<sup>48</sup> Some good Indian herders were also available—Pueblos and Navajos from New Mexico. The flocks were run in bands of twenty-five hundred head with three herders to the band. Wethers weighing about seventy-five pounds were sold to eastern feeders and traders, and trailed north to the Santa Fe Railroad in Colorado. Lamb crops were estimated as 90 per cent, but only two-thirds lived through to the yearling age.

#### TEXAS SHEARING PRACTICES

The spring shearing began in April<sup>49</sup> in the southern part of the Texas sheep area and continued well into June in the northern part. A number of ranchers, however, sheared twice a year (the fall shearing was in September or early October), and before 1900 a much larger proportion did so. After the first World War the practice declined, and today not more than 20 to 25 per cent of the flocks are fall shorn.<sup>50</sup> Previous to the 1890's, 35 to 40 per cent were so handled, and some years there were as many as 50 per cent. One reason why Texans could afford to shear twice yearly was that Texas short, fine, wools had an excellent reputation through their felting qualities.

<sup>45</sup> J. Evetts Haley, "Pastores del Palo Duro," *The Southwest Review*, 19, No. 3 (April, 1935): 9–16. Also Charles Goodnight, 285–86.

<sup>46</sup> John V. Stevens, Superintendent Matador Ranch, Channing, Texas. Letter to author, June 5, 1945.

<sup>47</sup> Gordon, "Report on Cattle, Sheep, and Swine," *Tenth United States Census*, III, 983.

<sup>48</sup> *Ibid.*

<sup>49</sup> J. M. Jones, "The Range Sheep Industry of Texas," *The Cattleman*, 22, No. 10 (March, 1936), 76.

<sup>50</sup> *Ibid.*

The number of flocks that are fall-sheared varies somewhat from year to year, depending upon several influences, among which are range conditions, the demand for short wools, and the financial position of the growers concerned. Generally the wool sheared twice a year ranges between 15 and 25 per cent of the state's production. A number of Texas wool growers believe that sheep produced under southwest Texas conditions will, as a result of being shorn both spring and fall, remain more thrifty, produce a significantly heavier total clip of wool, raise a larger percentage lamb crop, and . . . show a smaller death loss than flocks under similar conditions sheared once a year.<sup>51</sup>

More exact tests at the Range Experiment Station in Sonora (1920-29) indicated, however, that the average increased production (8.74 pounds for a single shearing in aged ewes against 9.58 pounds for those shorn twice, and 9.04 pounds in two-year-old ewes against 9.77 pounds in those shorn twice) was not adequate to offset the lower prices paid for shorter staple. In addition, the cost of the second shearing, and screw-worm and other losses following shearing, had to be included.<sup>52</sup> These facts account for the decline in shearing twice a year.

#### THE WOOL WAREHOUSE SYSTEM

Prior to 1880, the West Texas wool clip was hauled by wagon to San Antonio for marketing. The principal wool merchant in that city was T. C. Frost, who operated until 1892. Frost acted purely as a warehouse man and commission salesman, and was reputed to handle more wool than any other man in the United States.<sup>53</sup> Another pioneer warehouse was at Kerrville. In 1877 the railway reached that point from San Antonio, and Captain Charles Schreiner erected a warehouse on the main track that handled the wool from several counties thereabout. In 1890 its capacity was doubled, and in 1898 a new stone warehouse was built on a convenient railroad siding.

Both Frost and Schreiner first did a business in wool, and then developed a

banking institution. The Frost mercantile establishment handled sheepmen's supplies and operated the warehouse in connection. In one corner of the store was a small room with a window that had a sign "Bank" over it. Many of the growers left the proceeds of their clips on deposit with him, thus forming the nucleus of the present-day Frost National Bank of San Antonio.

Similarly, Captain Schreiner assumed responsibility for the clips of his consignees, but since he had organized a bank in the seventies, he held priority in financing range wools. Even in the late sixties, he began concentrating wool, mostly small clips, in Kerrville, and forwarded it by wagon to San Antonio. When he began financing stockmen in the seventies, he regularly insisted on diversification in livestock, and required borrowers to use part of the money furnished them for sheep.

In Del Rio, about 1900, wool was handled free of charge by F. C. Cochran and James McClymont. They provided the service for the Roach-McClymont store and for customers of the First National Bank of Del Rio, and neither commission fees nor warehouse charges were assessed. Shortly afterward, two firms began handling wool on a commission basis—Will F. Whitehead and Company (the company consisted of T. L. Drisdale, "Connie" Scales, R. L. Miers, and Thomas Butland), and C. O. Fokes and Company. In 1919 the Del Rio Wool and Mohair Company was set up, in which Walter Whitehead and

<sup>51</sup> J. M. Jones, S. P. Davis, and W. H. Dameron, "Shearing Sheep Once vs. Twice a Year," *Proceedings of the American Society of Animal Production* (November 26-28, 1937), 159.

<sup>52</sup> *Ibid.*, 159, 161.

<sup>53</sup> E. S. Mayer, "The Texas Wool Warehouse System," *Address before the Annual Convention of the Texas Sheep and Goat Raisers' Association* (December 7, 1938).

C. B. Wardlaw later took leadership. In 1938 Whitehead incorporated as the Val Verde Wool and Mohair Company. All had spacious warehouses and furnished typical services.

To the north, Theodore Heick opened a warehouse in Abilene in 1882 that took care of wool convenient to the westward-building Texas & Pacific. To the east, in 1885, the Santa Fe built into Ballinger, where another wool warehouse was established. This threatened the wool center at San Angelo, and San Angelo residents raised a fund of fifteen thousand dollars to pay haulage charges to Ballinger. For miles around wool growers were prevailed upon to bring their clips to San Angelo for storage. When sold they were hauled to the railroad terminus at Ballinger. Just as the money appeared exhausted, the Santa Fe built on to San Angelo.

Charles W. Hobbs and J. H. Mears were employed by the San Angelo citizens to handle the wool business. At first they had to store the wool in almost every vacant building and shed in the city. Approximately a million pounds annually were handled, and a year after the railroad arrived it became necessary to build a warehouse of their own. About the same time, Leon Halfin and Charles Rouff established another wool warehouse in San Angelo and competition commenced. Then in 1892, Jackson and Richardson opened a third house.

In 1895, March Brothers started a fourth warehouse, which they voluntarily liquidated in 1937, while Halfin and Rouff sold to Jackson and Richardson, after which the combined business was sold to Hobbs. In 1925 this undertaking was sold to G. T. Gwin, and a few years later everything was concentrated in the hands of J. M. Lea. After the Kansas City, Mexico, and Orient Railway was built to the Southwest, a warehouse was established in Mertzon,

while the extension of the Santa Fe south of San Angelo led to the opening of warehouses at Eldorado and Sonora.

The first company to be organized along the lines of the typical modern Texas wool warehouse was the Wool Growers' Central Storage Company of San Angelo, established in 1909 by Robert Massie and C. C. Walsh of that place, and Judge J. A. Whitten of Eldorado, then a rancher.<sup>54</sup> Apparently altruism was a motivating influence, as it was obviously designed to improve the wool marketing system then in vogue. It offered customers complete facilities for handling wool from the time it left the ranch until the wool was sold, shipped, and paid for. As the clip reached the warehouse, each bag was weighed and given an identifying mark. It was then piled for storage, as only occasionally did a clip go straight through. On delivery, the wool was automatically covered by insurance, the premiums for which were paid by the warehouse operator. While in the custody of the latter, he was responsible for its safekeeping. In many warehouses the wools were sorted into proper lots by a grading committee.

The warehouse operator had to display sample bags of each clip several times to buyers who might desire to look at them. In many warehouses lots were offered for sale on designated dates, and sealed bids were requested on an "f.o.b. car" basis at the warehouse. The bids were examined secretly by the officials of the warehouse, and were accepted if satisfactory to the particular grower. Otherwise they were rejected and the wools were offered again at a later date.

Sealed bids were more effective for the growers when the demand for wool was brisk, and were more difficult to

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<sup>54</sup> Mayer, "The Texas Wool Warehouse System."

obtain on dull markets, when buyers felt that they could shop around with less risk to their supply. Under either selling method the grower was consulted about the final selling price, however. After the wool was sold, the warehouse operator had to re-weigh it and load it for shipment. He then obtained the bills-of-lading, drew on the buyer for the proceeds, and remitted the balance to the grower after deducting the handling charges.

The Wool Growers' Central Storage Company, a typical warehouse, handled 1,395,892 pounds of wool during the first year of its organization. In 1931 it reached a peak of 9,857,719 pounds, and throughout its first thirty years averaged 4,475,000 pounds annually. Approximately 135 such warehouses now remain in the state, some larger, many smaller, and almost all are located on the railroads. In 1938 they handled exactly 97 per cent of the Texas clip. Only about twenty were exclusively in the wool and mohair business, and there were also about twenty that made livestock loans in connection with their warehousing activities. Nearly two-thirds of them handled other lines, such as feed, salt, and sheep supplies, while a few were also in the general mercantile business.

For the year 1938, Texas wool production was just under a hundred million pounds, while the carryover from 1937 was above fifteen million pounds. Allowing for the carryover into 1939, nearly a hundred and ten million pounds were handled by the warehouses that season.

When the warehouses conducted financing operations, they were usually in the form of advances on wool, or of production loans on the livestock. Chattel mortgages were placed, and the customary periodic inspections were made. If the mortgage was on the wool, advance of money was usually made after the wool was in the warehouse, one of the requirements being that it be sold by the warehouse company making the loan. After the wool was in storage the advances were usually quite liberal. Consignment of the wools by the warehouses to eastern dealers was practiced only infrequently, the trading position with the wools in the warehouses being practically as strong as when held in eastern hands. There are several years of record when not a single pound was consigned.<sup>55</sup>

<sup>55</sup> Mayer, "The Texas Wool Warehouse System."

#### ROLE OF TEXAS IN NATIONAL SHEEP TRENDS

Census	U. S. Sheep Population	Texas Sheep Population	Percentage Texas	U. S. Wool Production (Pounds)	Texas Wool Production (Pounds)	Percentage Texas
1850.....	21,723,280	100,530	0.5	52,516,959	131,917	0.3
1860.....	22,471,280	753,363	3.3	60,264,913	2,510,019	4.2
1870.....	29,017,951	714,351	2.5	100,102,387	1,251,328	1.3
1880.....	35,192,074	2,411,633	6.7	155,681,751	6,928,019	4.4
1890.....	35,935,184	3,454,858	9.6	191,278,084	3,480,114	1.8
1900.....	61,503,713	1,889,298	3.1	276,991,812	9,638,002	3.5
1910.....	52,447,861	1,808,709	3.4	305,834,000	10,257,779	3.3
1920.....	34,984,524	2,552,412	7.3	250,888,000	14,900,478	5.9
1925.....	35,590,159	3,137,129	8.8	253,203,000	20,112,976	7.9
1930.....	56,975,084	7,021,334	12.3	352,129,000	38,523,669	10.9
1935.....	48,357,506	7,026,543	14.5	361,531,000	52,564,478	14.5
1940.....	40,129,261	8,447,809	21.0	374,564,000	62,868,082	16.8
1945.....	41,223,869	8,585,581	20.8	279,978,955	61,994,338	22.1

**TEXAS IN THE NATIONAL PICTURE**

While Texas is one of the oldest states in the sheep industry, its recent developments have been startling. The first census of sheep was in 1850, when it had 100,530 head, or 0.5 per cent of the total United States population. In the Census of 1940, there were 8,447,809 sheep listed for Texas. They formed 21 per cent of the total for the country. It is obvious, therefore, that Texas not only exercises a preponderant influence in national sheep trends, but that its fine wools play a leading part in national marketing. The preceding table presents some of these facts statistically.

\* \* \*

The evolution of the modern sheep industry in the Lone Star State has involved many strenuous phases—emotionally, economically, and climatically. It has attained the greatest volume of production of any of the United States, and a basic system of operation unlike any of the others. Two highly distinctive features characterize its industry—herding under the wolf-proof fence, and an effective wool-warehouse system. But its modern vastness arises from the effective commingling of the best features of Spanish-American, Yankee, British, and German techniques and traditions.

*With the calling sheep around me, and my collie's head on  
my knees,  
I float my cigarette smoke on the sage-scented prairie breeze;  
And at night, when the band is bedded, I creep, like a  
tired child,  
To my tarp, in the friendly wagon; alone on the sheep-range  
wild.*

—Arthur Chapman, "The Old Sheep Wagon"

♦ 18 ♦

## Organizing the Western Industry

**C**ONTRASTING systems of flock husbandry were introduced into the United States. In the British Colonies, sheep culture was under fence and intensive. The shepherd based his improvement and profit on his knowledge of each ewe—her feeding, fleece-growth, and number and quality of lambs. In the Spanish Southwest sheep grazed over open range, and flock raising was *extensive*. Ewes ran in large bands, a thousand to twenty-five hundred head, according to whether they were suckling their lambs or were dry, and a single herder stayed with them day and night.

Under the English method, twin lambs were desirable and profitable. Breeders sought close wooling down to the nostrils and pasterns in the belief that this character was correlated with heavy shearing. Under the Spanish system a ewe could suckle successfully only a single offspring, and it was not until shed lambing was perfected and supplemental feeds available that western flockmasters welcomed multiple births. Furthermore, tight wool-covering around the eyes prevented many sheep from seeing a coyote or prowling Indian.

In the East, land costs were high. Financial success came from improving the blood of the flock and increasing its output per unit. In the West, labor costs were disproportionate, and environ-

mental hazards greater. The weight of fleeces varied as greatly from feed conditions as from quality of breeding, and hardiness and ability to survive without expensive care were of equal importance with early maturity and proportion of fleece to body weight. Western growers needed volume production over which to distribute their costs. The seasonal concentrations of breeding, lambing, and shearing, the development of trained bands of shearers, and the long transport of wool to market became characteristic of the western industry.

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Spanish methods of management were first adapted to the United States in New Mexico. By the end of the eighteenth century, its flocks had multiplied so that grass and water distinctly limited the operator. Practically all of the area in what is now the state was unrestricted range, and the competition for fresh feed was great.

Lambing time was usually in April. Lambing grounds were located in some green valley where there was running water, with early salt or alkali grass, as in the regions of the Rio Grande, Pecos, or Mimbres streams.<sup>1</sup> By the time of the

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<sup>1</sup> Clarence B. Iden, President, Gross, Kelly, and Company, Las Vegas, New Mexico. Letter to author, September 20, 1938.

spring grass, the herders would leave the lambing grounds, the distance moved depending on the water gathered in the natural holes or lakes. Sometimes the flocks could drift a hundred miles—returning to be shorn before going to the mountains. In the southern section, sheep were shorn twice a year, and the herders returned to the shearing grounds in October for the fall clip.

In November they were off for the winter, all of the sheep, including the rams, moving out. Owners depended on the snowfall for water for both the band and the herder. Farther north, the flocks started earlier for the lower altitudes. September saw exodus into the valleys of eastern New Mexico and even onto the *Llano Estacado* in the Panhandle of modern Texas. Sheep did well in this latter region, notwithstanding the monotony of the plains and the long distances between streams and water holes. The grass was strong and the flocks would graze eastward until the turn of the year. Then over wide arcs they headed again for the mountains, and by May had drifted back to the Mora and Gallinas rivers near Las Vegas. When lambing and shearing were finished the *pastores* started for their summer grazing on the mountain slopes and in the lofty meadows or forests.

More watering problems arose in sheep than in cattle, despite the fact that they could go farther without it. Sheep preferred living water—streams and springs—and possessed a particular aversion to swamp pools. Yet they would drink alkali water if it were moving, and in extremity would even drink the soapy dishwater thrown out by the cook with trailbands.<sup>2</sup> An early operator crossing Nevada mentions a nearly stagnant water hole, where a few bubbles at one end indicated that it was fed by a spring. The ewes crowded where the scattered bubbles emerged

and trampled the area so that no water was left which any would drink.<sup>3</sup> The odor of marsh water, so stale they would not touch it, would keep bands from bedding down quietly or would hold them back when the shepherd wanted them to reach living springs.<sup>4</sup>

Sheep will eat snow, will drink water from thawing snow and ice, and will survive on dew on the range vegetation. In some places on the desert there is so much water accumulated in the desert plants about blossom time that sheep live on it. Flock owners formerly capitalized on this fact in the desert country of Nevada, Arizona, and southern California. In modern times<sup>5</sup> during December and January, flocks of twenty thousand sheep have been pastured on the desert between Holtville, California, and Yuma, Arizona.

Much of this country has shifting sand-dunes, but in years of good rainfall the desert verbena becomes very lush and provides sheep with nutrition and moisture. Ewes are driven onto the desert immediately after lambing, and lambs may weigh sixty pounds before their first drink of water. Because of this unusual quality of desert vegetation, sheep choked the western slopes of the Sierras in the spring, waiting for the snows to melt so that they could cross the Nevada barrens before the foliage dried.

#### SEASONAL SHIFTS FOR RANGE

As the industry spread over the West, the question of seasonal shifts became more and more important. In mountain and desert states like Arizona, Nevada, and Utah, the winter grazing was the more difficult problem, since the summer

<sup>2</sup> Shepherd, *Prairie Experiences in Handling Cattle and Sheep*, 209.

<sup>3</sup> *Ibid.*, 210.

<sup>4</sup> *Ibid.*

<sup>5</sup> *Los Angeles (California) Times*, January 5, 1941.

grass was easily found in the mountains. In states like California, Colorado, Wyoming, Idaho, Montana, and the western Dakotas, however, the ranch headquarters were on the winter grazing areas, and the flocks moved out each spring for the mountains.

Many of the main routes between winter and summer range were used originally by the western emigrants. In the New Mexico-Colorado intermovement, segments of the Santa Fe Trail served—especially around Raton Pass and from Fort Union to Santa Fe and Taos. In Wyoming and Nevada the California Overland Trail gave a good start, while in western Wyoming and Idaho, parts of the old Oregon Trail were utilized. In Utah routes from Fort Bridger toward Salt Lake, and from Salt Lake City to San Bernardino were equally valuable, while the trail from Santa Fe to the California gold mines led the way for seasonal movements in Colorado and east central Utah. As the country became better known, new trails were adopted, but the pioneers' highways made convenient starting routes for the early sheepmen periodically traveling between winter and summer grass.

The industry most nearly approached the seasonal rhythms characteristic of Estremadura in the state of California. The Spanish tradition had been preserved by the Mexican and Indian shepherds, and the influx of Spanish and French Basques from the Pyrenees fortified the custom when California became part of the United States. The most permanent of all the sheep trails led from the California valleys into the high Sierras:

Toward the end of spring . . . there will be winking in the pellucid gloom, in the vicinity of shearing stations, a hundred campfires of men who have . . . moved out from Famoso, from Delano, Poso, and Caliente, bound, as the mind of the head shepherd runs, for summer pastures, as far north as may be conveniently accom-

plished between shearing and lambing; and all the ways of their going and coming make that most notable of sheep walks, the Long Trail. The great trunk of the trail lies along the east slope of the Sierras, looping through them by way of the passes around Yosemite, and even as far north as Tahoe . . . the common necessities of the sheep business beat it into a kind of rhythm as early even as when every foot of this country was open range. . . .

Always in October or April one sees about the little town of Inyo, in some corner of the fields, two to six heavy wagons of the head shepherds with the season's outfit stores under canvas; and at Eibeshutz's or Meysan's happen upon the nearly unintelligible herders buying the best imported olive oil and the heaviest American cowhide boots. Hereabouts they refresh the trail-weary flocks in the hired pastures and outfit them for the Sierra meadows. . . .

It is a poor shepherd whose mind cannot outrun the flock by a season's length when, by eight or nine mile journeyings, they pass northward in the spring. Little Pete drops out at Coyote Valley where, by owning the best meadow, he controls the neighboring field. Joe Eyraud, White Mountain Joe, turns off toward the upswelling of his name peak to the perennial pastures of its snows. One goes by Deep Springs and Lida to the far-between grazing grounds of Nevada, another to the burnt desert of Mono. Time was, before the Forest Reserve cut them off from the high Sierras, that the shepherds worked clean through them, returning to the lambing stations by way of North Fork, Kaweah, and the Four Creek country (on the west side of the Sierras), and such as came up the west slope went back through Mono and Inyo. But now they return as they went complaining greatly of depleted pastures.<sup>6</sup>

Next in significance to California, as measured by the travel across it, was the trail from the winter feeding and lambing grounds of the Snake River Valley in Idaho, over to the Soda Springs country in the southeastern part of that state. During the seventies and early eighties sheep from Oregon, California, and Utah crossed Idaho by trails which for the local operators soon became basic between summer and winter range. The majority of them headquartered along the Snake River or its tributaries.

The first concentration of Idaho sheepmen appeared west of Twin Falls—thence

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<sup>6</sup> Austin, *The Flock*, 71-86.



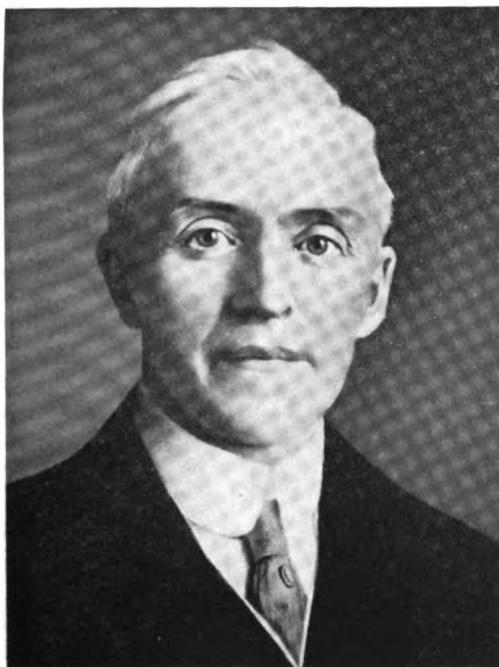
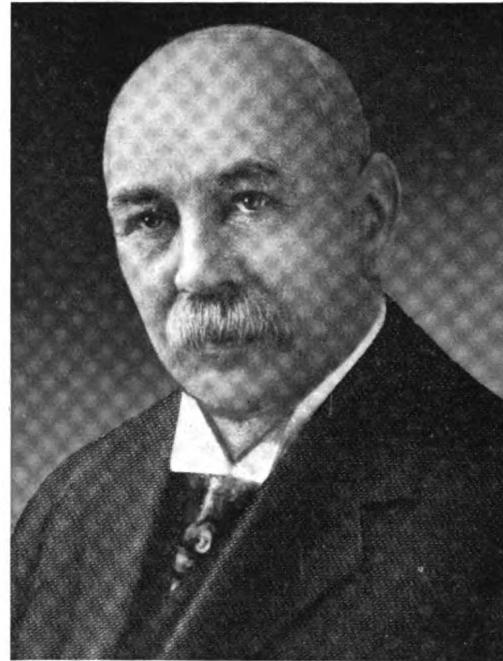
PANEL 93—Four Bankers Financing Wyoming Sheep Loans:

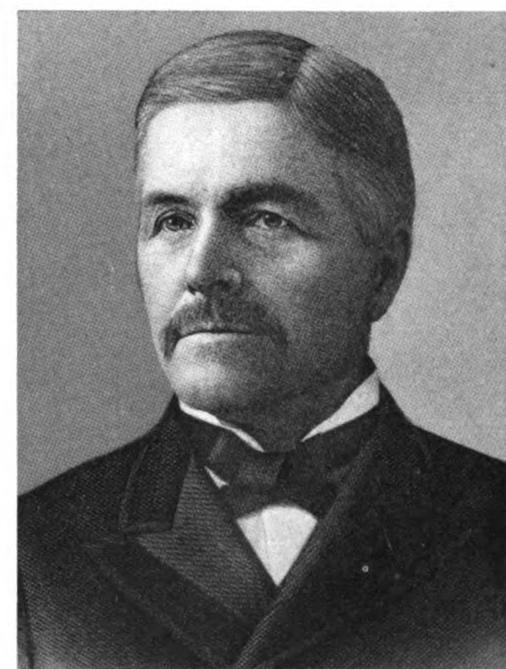
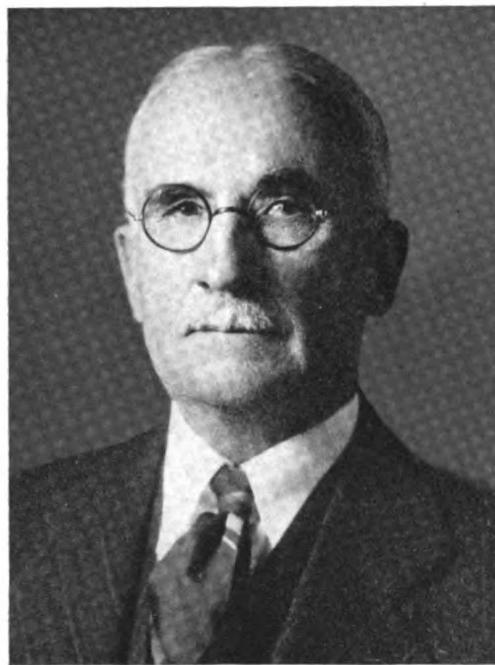
(*Above*) Alex J. Cunningham (pp. 431, 610).

(*Above Right*) John Clay (p. 439).

(*Below Right*) John B. Cosgriff (pp. 318, 609).

(*Below*) Thomas A. Cosgriff (pp. 318, 609).





PANEL 91—Four Montana Bankers Handling Sheep Loans:

(*Above*) S. F. Larabie (pp. 436, 615).

(*Above Left*) C. X. Larrabee (pp. 436, 616).

(*Below Left*) Sam Stephenson (p. 433).

(*Below*) T. C. Power (p. 304).

up to Caldwell, Weiser, Boise, and Emmett. Many of the flocks in the eastern part of this district drove into the mountains up the Big and Little Wood rivers, or cut across from the Lost River Sinks to Eagle Rock (now Idaho Falls), and southeasterly toward the mountains above Soda Springs. Some flocks turned northwesterly from the Sinks to go up the valleys of the Lost River, the Little Lost River, and Birch Creek, and by the nineties many were heading into the Sawtooths up the forks of the Boise River and the Wood Rivers. But all of these routes led from the great trail that passed to the south of Boise, and thence up Indian and Ten-Mile creeks to the Little Camas and Big Camas prairies.

Lambing was completed before the flocks left the winter bedgrounds, and as the season advanced the bands gradually spread into the open country, now public domain or leased lands, where they found a short nutritious grass under the sagebrush. It was usually early June before they began the ascent of the mountains and by October they were ready to start back.

From the Columbia River Valley on the Oregon-Washington line, and in the Walla Walla district, sheep trails to the mountains pointed almost every direction. The earliest routes from Walla Walla led into the Touchet and lower Palouse valleys, up to the Spokane-Grand Coulee region by 1870, into the Blue Mountains of Oregon by 1878, up to the Ellensburg country by 1879, and finally into the western Idaho mountains north of Lewiston in the early eighties.

About the turn of the century the country around Lake Chelan and west of the Okanogan River was first utilized for sheep (1904-05). By 1908 a new summer movement by rail began to develop from Oregon and Washington

into the northern Idaho mountains. F. M. Rothrock loaded his bands on the Chicago, Milwaukee, St. Paul, and Pacific Railroad at Kittitas and Priest Rapids, and unloaded them in Idaho at Falcon, near Taft Tunnel, and Clarkia. From Clarkia his bands spread in all directions.<sup>7</sup> Between 1912 and 1915 he ran eleven bands averaging eleven to twelve hundred ewes, with the lambs additional.

Other sheepmen (especially the Barrett and Krebs flocks from Heppner, Oregon) used the Northern Pacific to the Clark's Fork Valley in Montana, unloading near Thompson Falls. More range was gradually developed around Potlatch, Sand Point, and other parts of northern Idaho. Soon about half of the flocks summering in these regions were trailed there and the other half were shipped in by rail. At the close of the first World War many Oregon sheep owners were shipping as far as Browning, east of Glacier Park.

A big factor in the development of the rail movement was the feeding-in-transit with the further right of transferring the billing from the ewes to the fat lambs. The ewes and cutback lambs even then trailed back to the wheat and pea stubble and finally the winter range. During certain seasons they were returned by rail on new billings, to take advantage of the alfalfa growth after the last cutting of the season.

The most important trail in Montana led across the northern section of the state. Growers in the Great Falls country

<sup>7</sup>F. M. Rothrock, Spokane, Washington. Interview with author, March 1, 1941. Rothrock was a member of the first grazing board to handle forest allotments in this region and put the card bearing his name on the bottom of the list. Consequently, he got the summer grazing that had not been claimed—good grass but up high in the mountains and hard to reach. The forest supervisors required other allottees to provide a trail through their allotments which gave Rothrock access to the high range. Further data above from interview with Fred W. Beyer, U.S.D.A., Denver, Colorado, June 10, 1940.

would drive from their ranches to Malta and Glasgow, shear there, trail north and east to the summer range, cut out the fat sheep for shipment to St. Paul and Chicago, usually from Culbertson, and then drive the breeding end of the flock back to the winter range at home. J. B. Long of Great Falls was the biggest operator to follow this plan. A. M. Cree of St. Paul followed a similar routine farther south, on the Northern Pacific, loading at Terry, Fallon, Glendive, and Wibaux.

In Utah the problem for three-quarters of a century was to find suitable winter pasture, free from the snows of the high mountains. The flocks would spend the summer in these mountainous sections, and migrate each fall (over distances varying from fifty to three hundred miles) to the desert ranges of the eastern, southern, and western portions of the state. The mature hardy plant growth of the desert is only slightly susceptible to injury from large bands, and the sheep would move continually, seldom bedding down twice in the same place. Water was supplied by the snow and occasional fresh precipitation.

Pioneers in this movement were two boys, Israel and David Bennion, who in 1875 took a band of five thousand sheep belonging to their father and uncles (twice the number regularly handled today) westward through Lookout Pass to the Riverbed Desert. Israel was fifteen years old and David eleven. Their camp was an ordinary wagon with bows and a canvas cover, a cast iron stove that had to be lashed in place when the wagon was in motion, and a bed roll that could be spread lengthwise in the wagon box at night. This freight, plus a few sacks of flour, made up the entire camp outfit. No hay nor grain for the two camp horses was carried and the brothers' diet consisted solely of bread and mutton.

All winter these two boys wandered with their herd—seeing no white people and sending no messages. Details of this remarkable odyssey include cruel hardship and loneliness; perilous hunts for straying horses; blizzards, wolves, and bears. One night the storm carried the herd before it, and the shepherdless flock traveled sixty miles across the desert before it stopped, the snow covering its trail. Another night a blizzard caught one youngster far from camp with lost sheep, but he kept from freezing by sticking doggedly with the band and burrowing among them for warmth when they bedded down. For weeks the boys were without matches and kept fire alive Indian fashion by long rolls of smoldering cedar bark. But the following May they returned through Lookout Pass with themselves and their sheep all in good order.<sup>8</sup>

One more form of seasonal movement developed in Arizona and to a lesser degree in the irrigated districts of Idaho and Colorado. Winter pasture for many of the flocks was gradually developed on crops remaining in the fields during that time of year. In Arizona it was possible to have green crops all winter, and the number of flocks that grazed irrigated alfalfa, wheat, and cotton fields has increased annually. In all three of the crops listed, controlled winter grazing produces no diminution in annual yield, but does supplement the income of the irrigated farms materially. The custom first developed about 1900, but did not spread rapidly until the early twenties. Throughout the intervening years both the Salt and Gila River valleys in Arizona have been covered each winter with flocks. This practice also advanced the lambing date and the time of return to the mountains.

<sup>8</sup> Glynn Bennion, Letters, August 16, 1938, and June 27, 1939.

In the closely-settled irrigated valleys it has been impossible to maintain sheep trails, hence most of the movement has been based on railroads or large trucks. Even in the winter transfer to the deserts of Utah and Nevada, the use of wheels has increased. However, on public lands, the Grazing Service and the Forest Service have preserved the natural trails for permittees.

#### ORGANIZATION OF RANCH MANAGEMENT

A most typical factor in western sheep operations has been the organization for management and administration of the ranches. The larger Spanish and Mexican ranches were very elaborate, both in personnel and management, but the American ranches have been "streamlined" into simplicity. Typical of the Latin system was the Callahan Ranch in Encino County, Texas,<sup>9</sup> during the seventies, although even then it was a survivor of the old period rather than a representative of contemporary conditions. Its staff mirrored the Spanish genius for complexity, and included one *major-domo*, six *caporals*, eighteen *vaqueros*, and fifty *pastores*. The *major-domo* had charge of all routine activities, going the rounds of the sheep camps, checking the condition of the flocks, discharging incompetent herders and hiring new ones, and overseeing the monthly accounts and reports of those under him.

Each *caporal* supervised a group of three *vaqueros* and nine *pastores*. A *caporal* spent most of his time in the saddle (except when preparing accounts and reports), apportioning range for the different bands, directing or helping the search for lost or stolen sheep, inspecting for disease and helping to treat it, and carrying out other routine matters of a similar nature.

Each *vaquero* oversaw three *pastores* and kept constant watch and supervision over the flocks. He was higher paid than a *pastor*, and was responsible for the physical delivery of supplies.

The *pastores* had charge of the individual bands, each comprised of about two thousand head. The *pastores* accompanied them day and night, moving with them as they grazed, and corralling them or bedding them down where they could attend them at night. The *pastores* traveled on foot, but were assisted by their dogs in keeping their bands assembled and in protecting them from wild animals. In fact, most dogs were able to keep their flocks together and protect them in the absence of the shepherd.

Under the Spanish system few owners actually managed their flocks, but left most of this duty in the hands of the *major-domo*. American flockowners, however, took direct charge of their bands, so that ownership and flock management were concentrated in one person. Many of the duties of the *caporal* are also retained by the owner under the American system. The camp tender assumed most of the tasks of the *vaquero*, but usually handled only two bands (although occasionally several). The herder is the *pastor*—better fed, better housed, better equipped, and granted far more independence and responsibility than under the Spanish system.

#### HERDERS

Pivotal in the western system of commercial flock management was the sheep-herder. He alone was responsible for the safety, health, and nourishment of the flock, and to these ends good herders devoted their entire lives. Separated from their fellows, sheepherders have

<sup>9</sup> Gordon, "Report on Cattle, Sheep, and Swine," *Tenth United States Census*, III, 980-81.

always required a nature rare in the ordinary walks of life.

To the herder was entrusted a band of sheep whose breeding value usually exceeded fifteen thousand dollars<sup>10</sup> and whose wool value often exceeded ten thousand dollars. He was in full control of them, spending every hour of every day, without respite, where he could hear their voices, watching them and defending them against predatory animal, storm, thief, and competitor for the grazing grounds.

No one has satisfactorily explained his loyalty to his charges. It is not due to his love for his employer—for thousands of herders detested and even cordially hated the men for whom they worked. It scarcely seems due to love for sheep—as, superficially at least, a herder's patience is daily exhausted by the contrariness of his charges. Obviously it is not his antipathy toward fellow men that binds him to the flock—for ninety-nine out of every hundred herders eagerly welcome human contact, and reluctantly permit visitors to depart.

One guess as to the cause of this loyalty is as good as another, but perhaps the best explanation is that the sheepherder possesses a modified maternal instinct—transferred to the opposite sex and to another species—which submerges personal urgencies and desires in the welfare of his charges, regardless of inconvenience, personal embarrassment, or pain.

This aspect of the herder's life has been difficult to understand. In England, Scotland, and the Pyrenees, the shepherd was respected and praised; in the western United States he was maligned and traduced. More misinformation was current about him than any other class on the frontier, and the wildest vilifications of his character and personality were accepted as true.

The majority of herders have been of so-called "foreign" races. Mexicans and

Indians predominated in the Southwest, while in California there were also Bearnais and Daupinois French, Basques, Portuguese, and occasional Germans.<sup>11</sup> During the period 1870–90 there were many Chinese herders.<sup>12</sup> In the Pacific Northwest, Scotch, Irish, and English herders appeared, as well as in Montana and Wyoming. Among the Mormons of Utah and southern Idaho, most of the herding was done by young men from the families owning the flocks.

In many regions linguistic difficulties accounted for the disrepute in which herders were held by homesteaders, cowboys, and other frontier classes. The general impression was that no man tending sheep could be a reputable citizen. His language could not be understood and he was such a low order of creature that his comfort need not be considered, nor his rights respected. The solitary life of the sheepherder seemed a punishment beyond endurance for the cowboy, who was the herder's natural enemy under open range conditions and whose life was full of activity and rapid motion. The common interpretation of the sheepherder's life is quoted in the following:

Few sights are more somber and impressive than the solitary figure of a herder outlined against the sky, thousands of sheep about him and no human being or habitation in sight. For weeks he does not see his kind, and then only for a few minutes, perhaps, when a teamster brings him a load of "chuck" to keep him for another month. He grows morbid and melancholy, and the desert comes to hold for him a horror not far distant from madness.<sup>13</sup>

Gilfillan<sup>14</sup> reports two customary theories of sheep herding: "that no man

<sup>10</sup> In 1919–20 it reached \$30,000 per band in some cases, and after World War II, \$40,000.

<sup>11</sup> Austin, *The Flock*, 53–54.

<sup>12</sup> Shepherd, *Prairie Experiences in Handling Cattle and Sheep*, 146–50.

<sup>13</sup> William M. Raine and Will C. Barnes, *Cattle*, 255.

<sup>14</sup> Archer B. Gilfillan, *Sheep*, 3.

can herd for six months straight without going crazy," or that he "must have been mentally unbalanced for six months before he was in fit condition to entertain the thought of herding." But the herder himself holds to a different view. Gilfillan<sup>15</sup> proclaims that, "the herder, as the official chaperon for fifteen hundred strong-minded, but misguided, females, has a perfectly valid excuse (if he wishes) for going crazy at any moment he may elect."

The most fallacious misconception of herding is the idea that it is monotonous.

There is really little monotony in it. The sheep rarely act the same two days in succession. If they run one day, they are apt to be quiet the next. They herd differently in a high wind from what they do in a gentle breeze. They travel with the cold wind and against the warm one. They are apt to graze contentedly where feed is plenty and to string out and run where the picking is poor. Herding at one season is so different from herding at another as almost to constitute a different job. No one herding day is exactly like any other day, and there is much more variety in them than there is in the days spent in an office or factory.<sup>16</sup>

Spanish shepherds were in Hispaniola, Jamaica, and Cuba by 1500 and in Mexico, Central America, and Peru by 1525. The priests at the missions in the Rio Grande Valley faithfully transformed the Pueblo tribes into sheep keepers, while the Moquis of northern Arizona and the Navajos of New Mexico and Arizona, absorbed ovine culture even though they neglected religion. At Father Kino's missions south of the Gila, herding was also adopted. The historic string of missions in California required hundreds of Indian neophytes to care for the thousands upon thousands of sheep. In fact, the gentlest, most sympathetic, and most keenly understanding herders and shearers of the Southwest came from the Indian tribes of southern California.<sup>17</sup>

The relation between the Mexican herder and the flock owner in the South-

west has long been paternal. Signing the contract with the herder is an important ceremony and both signatures are affixed, even though the contract runs for six months only. For most herders, the six months work provides enough financial credit to care for the family throughout the year.

Wages averaged around \$35 per month in the 1935-40 period, but the herder received liberal board and lodging facilities, either at headquarters or in the sheep wagon. Only a small amount of cash changes hands, and this when the contract is signed. The rest of the wages are received as credits for the account of the herder's family at stores in nearby towns. Usually the accounts are balanced annually. On some of the larger sheep ranches the total crew of workers may owe the flockmaster as much as \$8,000 to \$12,000 at the peak of indebtedness, but they nearly always work out their total debt.

Mexican herders specialize. Some work with buck herds only, or with ewes and lambs only, or with dry ewes. Some are specialized winter herders and deal with breeding and feeding; others are summer herders who handle the lambing, wrangle the bands at shearing time, and care for them in the high summer ranges. Over much of the Southwest the date for changing to winter herders is October 25, while the summer herders come the corresponding day in April.<sup>18</sup>

In the days when the sheep of southern California lambed in the San Joaquin, Kern, and Mohave valleys, and crossed over the passes to go up to the Sierras, herders were of every nationality—

<sup>15</sup> Gilfillan, *Sheep*, 152.

<sup>16</sup> *Ibid.*, 37-38.

<sup>17</sup> Helen Hunt Jackson, *Ramona*, 59-60.

<sup>18</sup> Neil M. Clark, "Shepherds of Mesa Land," *The Country Gentleman*, 111, No. 5 (May 1941): 10-11, 58-59.

French, Basque, German, Manx, Portuguese, Mexican, Indian, and occasional Americans or Englishmen. Each had learned his trade in his own school and each contended in his own manner for the feed for his flock, for there never was enough of it. The measure of success was the man whose ewes came back with the fattest lambs and the best grown fleeces. Competition was intense, and the skill of the shepherd met its greatest test. Frequently the most successful were the Dauphinois and Bearnais French and the Basques.

From the American standpoint, however, the Frenchmen were not so desirable, since the majority of them returned to their native country. The Basques, on the other hand, became flockowners. The system was simple. A herder would run his flock for a year or two and take all pay above his bare necessities in ewes, which he ran with his employer's bands. After one year's increase, he usually combined with another small owner. Even in the seventies it was not good form to throw this new flock onto the original owner's range, and the search for grass soon covered the West with sheep. When the range was filled, the new men became the "tramp owners" that led to the final leasing of the public range under the Taylor Grazing Act.

Numbers of early day herders developed into the leading sheep owners of their state. The Basque, French, and Portuguese herders usually started with men of their own nationality, and were able to go back with their original employers as herders in case they were unsuccessful. But most of them became owners. The mountain states, especially Idaho, Montana and Wyoming, are dotted with Basque sheepmen who made good.<sup>19</sup> Not to be outdone, the Scotch and Irish often found sponsors of their own race who put them on their feet.

#### THE SHEEP WAGON

The Mexican and Indian herders of the Southwest were content for nearly three centuries to transport the supplies essential to handling their flocks on pack burros. They slept under the open sky in a nearly rainless country, and the shelter and conveniences necessary to successful herding in the Northwest were unimportant to them. Throughout the seventies and early eighties the sheepmen of the region north of Colorado and Utah also used saddle horses for their personal transportation, and a pack horse or mule to carry their supplies.

When the big eastward trail movements began in the mid-eighties it was uneconomical to drive as many pack animals along as would be needed, and by 1883 most trail drivers were using wagons to transport their essentials.<sup>20</sup> The convenience of the wagon for this form of traveling soon led to its consideration for ordinary herding. Claimants for originating the modern sheep wagon are reported from Washington, Idaho, Utah, Colorado, and Wyoming, but the most authentic "first" seems to come from the last-named state. In 1884 James

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<sup>19</sup> Shortly after 1890 the Basques began to spread from southern California into Arizona, Nevada, and Oregon. The drouth of 1896 forced many of them to scatter through Reno, the Carson Sinks, and the Stein Mountains, as far east as Elko, where they found some pioneer Basque families already established—the Garats of Tuscarora and the Altubes of the Spanish Ranch.

Still others went beyond, the Espondas to Wyoming, the Archabals to Idaho, and the Etchepares, Etchartes and Oronos to Montana. In California two-thirds of the members of the state wool growers' association about the turn of the century were Basques—Amars, Arburuas, Etchegarays, Etcheverres, Etcheniques, Soldumbryhs, Ansolabeheres, Bastanchurys, Gastambides, Bidarts, Goldarucenas, Irrebarris, Espeliers, Leonis's, Oxararts, Amestoy, Yparraguirres, Oyharzabels, and Bidegarays.

<sup>20</sup> Shepherd, *Prairie Experiences in Handling Cattle and Sheep*, 135-39.

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Candlish of Rawlins<sup>21</sup> designed and built a sheep wagon (known as the "house-on-wheels") at his blacksmith shop on the northwest corner of the modern courthouse grounds.<sup>22</sup> Wintry Wyoming weather made shelter essential, but the flocks moved over such a wide area that shacks or cabins were impracticable and freighters' wagons too heavy.<sup>23</sup>

About 1892<sup>24</sup> the Schulte Hardware Company of Casper, Wyoming, employed Marshall Buxton to make an improved sheep wagon, mounted on a special "mountain gear" manufactured by the Bayne Wagon Company of Kenosha, Wisconsin. These wagons had seat boxes, a stove, a table that held the bed, a sliding lamp bracket, and cupboards for supplies. The top was a combination of linoleum, blankets, and canvas—the latter loose and baggy until the first rain shrank it into place. The original Schulte wagons cost \$248 and the Bayne running gear varied from \$65 to \$195. A wagon with hardwood finish, good for a lifetime, cost about \$1,200. Other manufacturers in nearby states adopted the idea, and there were numerous makers by 1900.

The plan of arrangement was soon standardized. The door was located at the front of the wagon on the right-hand side, where the driver's seat would normally be placed. It was divided into two panels, the upper carrying three panes of glass for lighting. At the rear, over the bed, was a hinged window which could be held open at any angle.<sup>25</sup>

To enter the wagon the herder stepped on the tongue but when it was not moving he often used a box, a block of wood, or even a set of steps. On the right, as one entered the wagon, was the stove, with its pipe projecting through the top. Just beyond it was the dish cupboard, and between the cupboard

and the bed was a short bench which could be used as a seat. On the other side was a longer bench, running from the door to the bed. The bed was cross-wise, at the rear of the wagon, and was sometimes equipped with springs—though usually with just a mattress over the hard boards. A table was hinged to the bed, which could be dropped between the long seat on the left and the short seat on the right. It was held in place by either a chain from the roof or a leg which could be dropped to the floor. The benches were built directly over the wheels, and there were trap doors in each leading into the "grub boxes" which were suspended below the body, between the front and rear wheels.

In recent years, all metal, flat bottomed wagons, lined with heat-insulating material, have been built—mounted on rubber tires. They are provided with radios, and are turned out in sufficient quantities to sell at \$500 to \$800. Some of them are so modern that they are not even drawn by horses, and automobile pick-ups or small trucks tow them. Occasionally this type of wagon suffers handicaps in the mountains.

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<sup>21</sup> James Candlish was of Canadian birth and followed the Union Pacific construction of the sixties across Nebraska and Wyoming to Fort Steele "at the end of the track." He had learned wagon making and blacksmithing in Montreal and fulfilled a very useful function around the Fort until the troops were removed. He then moved into Rawlins where he opened a blacksmith shop of his own.

<sup>22</sup> Agnes Wright Spring, "Sheep Wagon Home on Wheels Originated in Wyoming," *Wyoming Stockman Farmer*, 46, No. 12 (December, 1940): 1, 3.

<sup>23</sup> The Wyoming Wool Growers' Association at its 1909 convention commemorated the 25th anniversary of Candlish's invention with a souvenir watch fob of three discs attached by links. The top disc carried a sheep's head, the second a plaque of Candlish, and the third a tiny picture of his original sheep wagon.

<sup>24</sup> Spring, "Sheep Wagon Home on Wheels Originated in Wyoming," 1, 3.

<sup>25</sup> Gilfillan, *Sheep*, 21-24.

## SHEEP DOGS

So much of a romantic nature has been written about sheep dogs, their faithfulness under extreme adversity, and their instinctive response to their duty, that it is difficult to separate the facts from the glamour. Early New Mexican traditions indicate the willingness of dogs to follow and protect their sheep even when Indian bands had massacred the shepherds and were driving the flocks to captivity or slaughter. Wherever sheep were raised, stories are told of dogs that recognize when individuals were missing from their band and that do not give up until they are returned to the flock.

One Wyoming owner<sup>26</sup> tells of trailing three to four hundred young rams over a four-day route and losing five head the first day. One of his dogs was also missing and on delivering the band he returned to look for the strays. A day's drive behind the flock he found the dog, bringing the five rams, and farther back he found where the dog had bedded them down on the three different nights of the journey. Other stories are told of the sagacity of dogs in saving sheep in storms, of their ability to sort dry ewes from ewes with lambs, of their rescue of flocks trapped by forest or prairie fires, and of their forcing sheep to water holes when thirst-madness made the flock utterly uncontrollable by man alone.

There is a sharp distinction in the way a herder's dog and a drover's dog works. When the mixed bands of cattle, sheep, and swine were trailed to New York and Philadelphia markets from the Ohio River Valley more than a century ago, the principal need was for a cattle dog to snap at the heels of the bullocks, fat cows, and calves. Such dogs were too rough for sheep, which had to be worked more slowly and patiently.

A smart sheep dog was like a smart herder—he made the sheep think they

were going the way they wished, rather than that they were being driven there. Drovers frequently used two dogs—one for sheep and the other for cattle and hogs. Many of these dogs were well trained, Prince Maximilian on June 24, 1834, discovered a German shepherd at Zoar, Ohio, crossing a large flock over the Ohio Canal. "His dogs were exceedingly careful in keeping the flock together."<sup>27</sup>

Two kinds of sheep dogs existed. Those that *guarded* and those that *herded*. The first "guard" dogs in the Southwest were Spanish, but records of their importation are unavailable. This sheep dog of Spain was a tremendous animal—more than thirty inches tall at the shoulder. It guarded the migratory flocks from the attacks of wolves, and was especially useful in protecting weak and lagging sheep. These dogs were devoted to their masters and flocks, but showed extreme ferocity against intruders. Apparently the sheep dogs of the first two centuries in the Western Hemisphere were descended from this blood, but it is equally apparent that they intermixed rather freely with the half-wild curs belonging to the Indians. Yet their crossbreds were also faithful "watch" dogs. Gregg wrote one hundred years ago:

The flock is well guarded during the night by watchful and sagacious dogs against prowling wolves or other animals of prey. The well-trained shepherd's dog of this country is indeed a prodigy; two or three of them will follow a flock of sheep for a distance of several miles as orderly as a shepherd, and drive them back to the pen again at night without any other guidance than their own extraordinary instincts.<sup>28</sup>

<sup>26</sup> Helen Huntington Smith, "Hey, Shep!", *The Rotarian*, 58, No. 5 (May, 1941):42.

<sup>27</sup> Maximilian, Prince of Wied, *Travels in the Interior of North America* (Vol. 24, *Early Western Travels*, edited by R. G. Thwaites), 156.

<sup>28</sup> Gregg, *Commerce of the Prairies*, Part I, 322-23.

Lyman<sup>29</sup> states that the New Mexican sheep dog was found only in sheep-raising districts, and that it differed materially from snarling, cowardly packs of mongrels infesting most of Mexico and New Mexico. The shepherd dogs were larger and he believed them superior to the Scotch and English breeds. Kendall comments on their behavior:

There was no running about, no barking or biting in their system of tactics; on the contrary they were continually walking up and down like faithful sentinels on the outer side of the flock and should any sheep chance to stray from its fellows, the dog on duty at that particular post would walk gently up, take him carefully by the ear, and lead him back to the flock. Not the least fear did the sheep manifest at the approach of these dogs.<sup>30</sup>

In the eastern colonies, "shepherd" dogs were descended from British stock. Most of them were rough-coated dogs of rather general breeding. In England this kind was known as the "drover's" or butcher's dog as distinct from the "colley,"<sup>31</sup> and was a strong-framed, short-tailed animal of superior intelligence. In color the strain was black and white, blue or gray, white, fawn, or brindle and white, and occasionally solid colored. While these dogs were used principally for cattle, they were readily trained for sheep. If it proved necessary to control the latter, the dogs were taught to take hold of the fleece on the side of the neck or cheek, releasing the sheep when they turned properly. Apparently the modern breed known as the "Old English Sheep Dog" was related to this stock—though selected toward a different ideal recently. In America the type degenerated considerably in size. Old paintings indicate that this dog was in the colonies before 1700, and it still persists in the farming states of the Midwest.

The Scotch collie was imported freely by the middle of the last century. This dog was not the so-called "show type" of

collie but was smaller-framed, broader-headed, and quicker in action. Collies spread rapidly in the northern states, especially in New York, Ohio, Michigan, and Wisconsin, and were nearly as common as "shepherds" by the end of the century. The black and white, and sable and white varieties were the more popular.

The western herder's dog was descended either from the small black and white Border collies imported from Scotland, or from a strain of them exported to Australia and then brought to California. These dogs became very popular as the trail drives of sheep took place, and a few strains derived from single importations attained high reputations. The sheep dogs west of the 100th meridian today are almost exclusively of this type and breeding. They are small and active, weighing from thirty to forty pounds, and are descendants of dogs that have won prizes in the sheep dog trials of Scotland and Australia. Since 1876 these trials have been held annually in both countries, and the best dogs of the day carry the names of past winners in their pedigrees. Such imported exhibition dogs have been bred to the hardy range dogs of the West, and a fine race of herders' dogs has resulted.

These animals are trained from puppies. Most of them learn their duties with the older dogs, but some as small pups have actually been suckled by ewes until they felt themselves part of the flock. The herding instinct is born in them and many a puppy is judged a true herder's dog if it keeps a band of chickens bunched without further direction.

Sheep dog trials in the United States have been held sporadically for more

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<sup>29</sup> *American Agriculturist*, Vol. 3:241, quotes J. H. Lyman.

<sup>30</sup> *Ibid.*, Vol. 1:268, quotes George W. Kendall.

<sup>31</sup> Randall, *Sheep Raising in the South*, 287.

than half a century, especially in New England. Interest in them did not become general until the last two decades, however. Handling dogs at a trial is more difficult than when nothing else is present to distract their attention. However, prize winners under field trial conditions demonstrate their ability to concentrate on their duties. More of the winners in these trials are bitches than dogs, it being more natural for the male to observe activities surrounding the sheep and to exercise instincts as a guardian. Hence the crowd at a field trial distracts a male's attention more effectively from the orders of his master.

#### SHEEP-PROOF FENCE

Finding herders has become a vital problem in most of the western sheep country. The solitary life does not appeal to young Americans, and restrictions on immigration have prevented replacements through young men of the races that have built up the herding technique in the past. Consequently in certain sections of the country, especially in Texas where all the range is privately owned, "sheep-proof" fences have been built within which the flocks can be turned loose. First attempts in this field came about 1910, and the fence resembled the so-called "wolf-proof" fence used in Australia at a considerably earlier date.<sup>32</sup> While the original idea had to do with coyote control, a great many unexpected benefits developed for the sheep themselves.<sup>33</sup>

The initial cost of constructing sheep-proof fences is comparatively higher than herding, but after the fence has been completed the operating expenses are decidedly lower. Two range and fence riders care for approximately the same number of sheep as ten herders and camp tenders. Such fences eliminate camp equipment, as well as pack burros, teams, or motors used in moving the herders' camps.

Sheep-proof fences are built of thirty to thirty-six inch mesh wire at the bottom, with barbed wire above at four to eight inch intervals, while wolf-proof fences require mesh wire about fifty-one inches high, with one or two barbed wires above at three to four inch intervals. Of course wolf-proof fences are needed only around the very outside of the sheep pastures. To forestall entrance under the fence, a barbed wire is run along the ground on the opposite side of the post from the mesh wire. This prevents digging beneath it. In some sections loose rock is also rolled up against the fence to discourage digging.

The cost of these fences runs from \$1 to \$1.50 per rod in the southwest range country. In crossing dips or sloughs the wire is usually run straight across, and the space below filled with more mesh fencing. Across draws that carry flood water, a separate section is usually built so that when the water pressure becomes great the fence automatically opens. It can then be repaired after the waters subside, avoiding the extensive damage done to fences not provided with water gaps.

A main advantage of the sheep-proof fence is the cleanliness of the wool. Fleeces do not weigh as much as in the case of herded sheep, since the flocks do not crowd together in their own dust, but the wool scours a high proportion of clean content and the price is usually higher per pound. Some experiments in New Mexico indicate that lambs raised under fence weigh from five to fifteen pounds more than herded lambs, as the sheep do not bunch so and more feed is available to them. Also, they do not lose weight during the lambing and

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<sup>32</sup> J. M. Jones, "The Wolf-Proof Fence in Texas," *The Sheep Breeder*, Vol. 58, No. 6 (June, 1938) :31.

<sup>33</sup> Carl Welch, "Sheep-Proof Pastures vs. Herding," *The New Mexico Stockman*, 6, No. 6 (June, 1941) :6.

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shearing season since they can be driven to the pens and sheds in small bunches, while herded bands must be held in a compact group. Nearly 25 per cent more sheep can be grazed inside net wire pastures than under herd on the same number of acres, without detriment to the range. Also, the vegetation near watering places is not trampled so badly, as the sheep go to water in smaller groups when grazing at will.

On completion of fences of this type, the coyotes within the pasture are either driven out or killed, and the process is repeated at intervals. This guarantees weaning a much larger lamb crop, and bigger returns to the flock owners.

#### LAMBING

Lambing time in the sheep industry is the most crucial period. It occurs most favorably when feed and climatic conditions are suitable. On the range, lambs should not arrive until the grass starts in the spring unless shed lambing is practiced, as the ewes do not produce sufficient milk for their rapid and vigorous growth. Cold windy weather, chill rains, and late snow storms also affect the suitability of a given period for lambing, as all cause serious losses.

Back East, lambing usually occurred in a shed or barn—although farther south small pens or folds were used. In either case, the lambs were under close observation of the shepherd. Twin, and even triplet births were welcome. Supplemental feeding made up any deficiency in the ewe's flow of milk during the growth of the lambs. In the case of triplets the third lamb was put on a ewe that had lost her lamb, or if no such ewe was available, it was paired with a single lamb on another ewe. Farm flocks were not considered profitable unless one-third to one-half of the ewes bore twins, and a lambing ratio of 150 to 180 lambs per hundred ewes was believed essential.

In the West the situation differed.

Individual care could not be given to the ewes and additional feed (other than more grass) was seldom available. Lambs had to be ready for shipment in early fall, and practically no western ewes—grade, crossbred or purebred—could consume sufficient grass to provide milk for twins, nourish their own bodies, grow their fleeces and flesh up for the next breeding season. The job was difficult enough with single lambs, and twins were accepted only to provide replacements for ewes with stillborn lambs. In the mid-nineties, Austin wrote:

Artificial considerations . . . determine whether the ewe should be allowed to rear the twin lambs that Nature allots it. . . . Much depends upon the promptness with which the weaker of the twins is discarded or suckled to some unfortunate mother of stillborn lambs. . . . The skin of the dead lamb is sewed about the body of the foundling, limp little legs dangling about its legs, a stiff little tail above a wagging one—all of no moment so long as the ewe finds some rag-tag smell of her own young among the commingling smells of the stranger and the dry decaying hide.

Here and there will be young ewes in their first season, refusing their lambs. Trust the . . . herders for finding devices against such a reversion of Nature. About the corners of the field will be pits where by enforced companionship the one smell of all smells a sheep must remember . . . gropes to the seat of her dull consciousness, and the ewe gives down her milk. A common device is to tie the recalcitrant dam near a dog, and the silly sheep, trembling and afraid . . . makes friends with her unwelcome lamb as against their common enemy the collie.<sup>24</sup>

When ewes give birth to one lamb only, the percentage of lambs raised becomes crucial. Most western flock-owners must raise an 80 to 85 per cent lamb crop to break even, and more than 90 per cent to gain a profit. Individual ranches vary from 70 to 150 per cent, according to whether shed lambing is used.

The latter system requires additional help, as no herder can give day and night care during lambing to the thousand or fifteen hundred ewes he has in

<sup>24</sup> Austin, *The Flock*, 20-22.

his band. Despite the best efforts to breed the ewes the moment they are in season, and despite the careful daily sorting of bred ewes into bands that should lamb simultaneously, the gestation period varies. Lambing will spread over two to four times as many days as were required for breeding.

So the owner of several bands of sheep hires extra help. Some of these "lambers" come from nearby communities; many are drawn from the regular migrating help that previous to World War II followed haying, harvesting, lambing, and shearing all over the West. The permanent employes of the ranch are assigned to the more responsible jobs, while the temporary help is divided, according to skill and experience, into day and night lambers.

Two methods of making up new bands are followed. In one case the bands remain in charge of their regular herder and the ewes that year each day are thrown together, when ready, into new bands. Hence when they move out from headquarters their lambs will be approximately the same age. In the other case, the ewes of each band most likely to lamb first are sorted into a separate "drop band," and held until a normal sized group of ewes and lambs is ready to leave for the range.

The bands with the largest lambs are gradually driven greater and greater distances from headquarters, but are usually kept within reasonable driving distance until after shearing (when lambing precedes shearing). Bands of wet ewes are never driven as far daily during the early spring, or until the lambs are a month old, as dry bands or as bands with lambs are driven in the fall.<sup>35</sup>

Specialized lambers are paid as much as a hundred fifty dollars per month and board. The minimum is perhaps fifty dollars, but the poorer men are worth

far less than the difference in pay. The general lambing help receives forty to seventy-five dollars per month and board. Night lambers usually care for the night drop only to the extent of putting each ewe with her lamb in a claiming pen and seeing that the lamb suckles. The actual straightening up of the night drop (the necessary sorting) is left to the foreman or the day lambers.<sup>36</sup>

Each year it becomes increasingly difficult to hire competent lambers. This reduction has led to the increase of shed lambing, or other closely supervised methods, throughout the range sheep states. Most of the older lambers in the Northwest were of European origin, while in the South they were Mexicans and Indians. In Wyoming and eastern Montana, for example, the lambers were mostly Scotch, Irish, Scandinavian, or Basque, with quite a few Roumanians in the mountain area. Near Indian reservations all over the West there is a large proportion of Indian labor used, while along parts of the West Coast, French, Mexican, and Chinese lambers were important during the sixties to nineties. Today most younger men of American birth are not interested in sheep work of any kind, and the lack of labor is revolutionizing lambing methods.

Occasional attempts have been made to unionize lambers, but the employment has been too seasonal and the other interests of lambers too diversified, to accomplish organization. The lambers themselves object to joining unions because of the high cost of membership in relation to the short season that they work. However, the majority of them adopt limited hours and specified pay—uniform in each camp if not uniform between flocks.

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<sup>35</sup> E. V. Wilcox, "Sheep Ranching in the Western States," *Nineteenth Annual Report, Bureau of Animal Industry*, 80.

<sup>36</sup> Paul Etchepare, Secretary, Montana Wool Growers, Helena. Letter to author, April 4, 1941.

The necessity for preventing losses at lambing time was driven home to the western wool grower during the mid-nineties. Price levels were so low that only a maximum lamb crop and heavy fleeces could enable growers to survive, and especial attention was devoted to stillbirths, failure of ewes to claim lambs, and the various environmental hazards that reduce the number of lambs weaned and marketed. Purebred breeders had been using sheds for their lambing operations for several years; hence when commercial breeders needed efficient production, they adapted the purebred man's method to their own requirements. Idaho and Washington took the lead in the shed lambing, and the sheds were originally erected in districts where the growers had the most difficulty in saving lambs.

The first to use sheds for commercial bands were men who had been operating purebreds. In 1896 two Idaho spreads—those of A. J. Knollin at Soda Springs and of Frank and Fred Gooding near Shoshoni<sup>37</sup>—each lambed a band of grade ewes at the sheds used for their purebreds, after the purebreds had finished. Their results were so satisfactory that Ben Darrah of Boise shed lambed a commercial band the following year.

Probably the first commercial sheepman to use shed lambing for his entire flock was William Jones in 1901.<sup>38</sup> He had obtained title, in 1893, to the second farm in Idaho deeded to an individual by the Federal government. It was located on Dry Creek, ten and a half miles northwest of Boise. In 1901 he built a circular lambing shed, shingled, with a double row of pens, so arranged that he could feed from the center or outside. Jones' success was so impressive that various wool growers visited his establishment.

In 1903 Cecil Weeks and his father built sheds on their own place, patterned

on the Jones plan, and used them for many years.<sup>39</sup> In 1904 Jones sold his flock of five thousand ewes and his entire equipment to the Anderson brothers, and the Andersons continued the system very successfully. Many producers believed that the returns of the early lamb market would not cover the doubled costs of shed lambing, and continued to take chances on spring storms and death losses. But in general the practice spread.

By 1910 and 1911 a large number were using the system—almost the entire country along the Oregon Short Line in Idaho from Minidoka to Weiser. At Hagerman, John Curran was shed lambing by 1908, and in 1911 James Farmer built a complete outfit for the Clinton Sheep Company.<sup>40</sup> That year the Company shed-lambed twenty-five hundred ewes out of sixteen thousand, and the following year they handled all their bands in this manner.

In the state of Washington, shed lambing was used largely in the Yakima Valley and to the east. The system adopted was rather simple. Large roofless sheds were built which held three to four hundred individual pens, each about four feet square. During the lambing season,

<sup>37</sup> Bacon, Interview, May 28, 1940.

<sup>38</sup> William Jones was a native of Fort Worth, Texas, who went to Montana in partnership with a man named Tommy Hall—a Chinaman who had adopted an American name. In 1892 or 1893 he left Dillon, Montana, in company with John H. Gary and procured the Dry Creek Ranch. In 1894 he took a third interest with A. J. Knollin in a bunch of sheep from Pendleton and landed them in Boise on the Fourth of July. He held an interest in this flock with two brothers as well. His wife was a sister of the well known Idaho sheepman, Vern Emmerich.

<sup>39</sup> Cecil Weeks, Boise, Idaho. Interview with author, May 29, 1940.

<sup>40</sup> James Farmer, Boise, Idaho. Interview with author, May 28, 1940. The Clinton Sheep Company is owned by James Farmer, John Skillern, and Theodore Painter.

tarpaulins or heavy canvas covers were placed over the top, and stoves were installed so that lambs might be warmed artificially.

Each day the ewes from the main bands were driven through a chute and the shed foreman sorted into the drop band those that seemed likely to lamb first. These bands were kept close by the sheds. As soon as the lambs were born, wagons or sledges were brought to haul the mother and offspring into the sheds. The two were usually left in the claiming pen from two to eighteen hours until the ewe definitely "owned" the lamb. In addition to permitting the lamb to suckle, this "owning" process involved her immediate identification of the lamb by scent. Later she learned also to recognize its voice or bleat. Lambs that are not claimed become "bums" or "bummers" and must be brought up on the bottle or allowed to die.

Under the shed lambing system where supplemental feeding is possible, twin lambs are welcomed. The additional feed enables the ewes to give more milk in the early period and the twins get such a start that a large percentage pull through to market age.

When ewes and lambs thoroughly know each other, they are put into larger pens where four ewes with twin lambs or eight ewes with single lambs form the unit. They may be left in these larger pens for a day and then moved into still larger pens where the numbers are doubled. After this process has taken place two or three times, the band is placed in charge of a single herder.<sup>41</sup>

Larger quantities of feed are required for ewes suckling twins. Four bands (six thousand to sixty-five hundred ewes) require about twelve tons of hay and three tons of concentrates daily, with as many roots as the sheepman can provide for a well-balanced ration.

During shed lambing, three crews

operate—the shed crew, a feeding crew, and a pick-up crew. The shed crew keeps the pens clean, brands the ewe and lamb for identification, and makes certain that each ewe will be able to raise her lamb. The pick-up crew works in the drop band, and brings in ewes that have lambed, with their offspring. The feeding crew is responsible for feeding the ewes as indicated. In 1941, McWhorter<sup>42</sup> reported that under this system he had twenty-four hundred ewes with single lambs and twenty-eight hundred with twin lambs. When all ewes were counted his increase was 141 per cent.

In Wyoming, shed lambing has been used principally to give the lambs a better start in life. The practice is confined largely to the Big Horn Basin, and approximately one-third of the outfits have adopted it. Its object is to get a big lamb at the market, and the average weight of lambs thus produced is about eighty-four pounds as compared to sixty-five pounds for those dropped on the range. Feeder lambs usually bring as much as fat lambs in this section and the increased gain results in an increased cost. Perhaps the ultimate purpose has been to provide a market for the feed.<sup>43</sup>

Since the World War of 1914-18 the trend has been increasingly toward closer supervision of lambs. Probably five times as many ranchers were using shed lambing in 1940 as in 1920 and the use of claiming pens or pits on the more southern lambing grounds increased even more greatly. However, price ceilings and labor difficulties during World War II gave shed lambing a definite setback.

<sup>41</sup> Judy McWhorter, "Lamb Chops on the Hoof," *The Spokesman Review* (Magazine Section), April 21, 1940, 1, 3.

<sup>42</sup> V. O. McWhorter, Address Convention Washington Wool Growers' Association, Yakima, Washington, May 25, 1941.

<sup>43</sup> A. F. Vass, Professor, Agronomy and Agricultural Economics, University of Wyoming, Laramie. Interview with author, June 5, 1940.

## CHANGES IN FLOCK AGES

The relative proportion of different ages in the flock has been influenced over the years by the comparative profit in wool or meat production. During the colonial period, wool was the prime consideration. Mutton and lamb were seldom eaten in the plantation colonies (Maryland southward). During each war up to World War II, there has been a short period in which the emphasis was placed on wool production and wool prices mounted rapidly. This always reacted later in a slackening of demand and bad breaks in the wool market, which brought about liquidation of breeding flocks and the slaughter of the older wethers.

These phenomena were especially critical after the Revolutionary, Civil, and first World wars, although during the latter war aged wethers as a source of wool had practically disappeared and liquidation was accomplished through the slaughter of ewes. In early days the aged wethers liquidated appeared as increased commercial slaughter, but when ewes had to be liquidated in 1921, they were worth so little that most of them were not shipped far from their own ranges.

The proportion of ages and sexes in the average range flock in the mountain and intermountain country in 1880 was as follows:<sup>44</sup>

The wethers included those from a year up to four years old and over, although there were not many above four. If the national flock had been stabilized at the foregoing proportions, it would have required annually a little over one-sixth of the ewes to maintain the balance of classes. Under present conditions, when ewes form a much higher percentage of the flock, approximately one-fourth are needed.

By 1900 range costs of production had increased so that it was no longer possible to profit by selling fleeces from older wethers and ewes, and then fatten them for market. Price discriminations against older sheep had developed, and in 1900 lambs at Chicago brought \$1.40 more per hundredweight than sheep. In 1885 the margin was only fifty cents, but by 1925 it was \$7.70.<sup>45</sup> Looked at in another way, one received only a 14 per cent price premium, per hundredweight, for marketing lamb rather than mutton in 1885. But in 1900 it was 31 per cent premium, and in 1930, 140 per cent premium. Meat from the older sheep,

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"The proportions in the computation were based on the averages secured from four flocks from California, one from Nevada, two from Washington, two from Oregon, four from Montana, two from Idaho, and two from Wyoming. None of them differed importantly except that the earlier Washington, Oregon, northern California, and Idaho flocks had a higher proportion of wethers above the two-year age classification.

<sup>44</sup> See Statistical Appendix, No. 4.

State	Rams		Ewes		Wethers		Lambs		States Total
	Number	%	Number	%	Number	%	Number	%	
New Mexico.	1,188	1.25	59,084	62.13	20,715	21.78	14,116	14.84	95,103
Kansas.....	310	0.96	15,450	47.78	8,900	27.52	7,675	23.74	32,335
Colorado....	649	0.96	29,213	43.95	22,559	33.94	14,042	21.13	66,463
Wyoming....	690	1.31	24,800	47.34	15,800	30.16	11,100	21.19	52,390
Montana....	260	1.14	9,150	40.08	8,200	35.92	5,219	22.86	22,829
California...	2,838	1.10	130,780	50.54	69,206	26.74	55,932	21.62	258,756
Nevada....	180	0.77	11,000	46.95	7,700	32.86	4,550	19.42	23,430
Oregon....	127	0.48	10,830	40.73	9,350	35.17	6,281	23.62	26,588
Washington..	44	0.74	3,413	57.42	1,024	17.23	1,463	24.61	5,944
Total....	6,286	1.08	293,720	50.31	163,454	28.0	120,378	20.61	583,838

especially the wool-producing breeds, was not nearly as desirable as lamb, but it was necessary to use wool breeds in the West because of their higher flocking instinct. This increased the percentage of Merinos, Rambouilletts, Delaines, and other wool-producing varieties in the annual slaughter.

Data measuring the effect of these factors were not available until after World War I, when the principal change had already taken place. By 1923 the United States Bureau of Animal Industry began keeping continuous records of the percentage of lambs and yearlings (fed lambs ranging from eight to fourteen months of age) in the federally inspected slaughter.<sup>46</sup> In 1923, 86.8 per cent of these sheep were lambs and yearlings. In 1932, 96.2 per cent were such, and in 1940, 93.7 per cent. Generally speaking the demand for mutton from older sheep is strictly limited and lacks flexibility. Increases in proportions of older sheep have resulted from fluctuations in lamb slaughter rather than from increases in the numbers of ewes and aged wethers sold under federal inspection.

The change to the so-called "ewe and lamb" basis of operation involved a sharp modification in the method of sheep raising in the West. States, where the grazing season was short and early marketing of lambs in the fall essential, found it profitable to take artificial steps to protect early lambing, and various modifications of the shed-lambing system developed all over the Northwest.

#### SEASONAL LAMB SUPPLY

Dressed lamb is a perishable commodity and it has always been difficult to supply milk lambs (taken from slaughter directly from their mothers) except in the spring and early summer. One attempt to beat the season (as cited

earlier) was the development after the Civil War of the so-called "Easter Lamb" movement in New York, Pennsylvania, and eastern Ohio. Dorset ewes, which naturally mated earlier than other breeds, were bred so as to lamb between the end of November and first of January. These would weigh fifty to seventy pounds before Easter, and were dressed on the farm, wrapped in their cauls, and sold as specialties to hotels and better clubs or restaurants in the metropolitan centers. Such lambs brought very high prices and were a distinct luxury product.

The distribution service of the national packers, together with the geographical variation in lambing time, permitted a more economical solution of the problem. In southern California and parts of Arizona, lambing was easily advanced into November and December, and since the early 1940's a number of Texas growers have arranged their breeding season to coincide. Farther north in California (the San Joaquin Valley), lambing comes in January and February. It also has been pushed to this date in parts of Washington, Idaho, Texas, Missouri, and Tennessee.

In February and March, the lamb crop is born in northern California, northern Nevada, southern Utah, New Mexico, Missouri, Kentucky, and Ohio. In March and April the lamb crops arrive in the Midwestern farming states, and parts of Colorado and Utah. Contemporaneously come the early drops of Oregon, eastern Wyoming and Montana, and the Dakotas, while the rest of the range states finish in late April and May.

Because of this five to six months' period covering lambing dates, because of the time of entering and leaving the summer ranges, and because of differing rates of growth and maturity in the

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<sup>46</sup> See Statistical Appendix, No. 5.



PANEL 95—(Above) Harry F. Lee, secretary of the New Mexico Sheep Sanitary Board (p. 460).

(Above Right) Harry W. Kelly, president of Gross, Kelly, and Company, and member of the New Mexico Sheep Sanitary Board (p. 460).

(Below Right) Jesse Smith, secretary during 1890's of the old Utah Wool Growers' Association (p. 574).

(Below) Louis V. Olcese, head of the Ardizzi-Olcese Company, sheep supplies and loans, Bakersfield, California (pp. 436, 605).



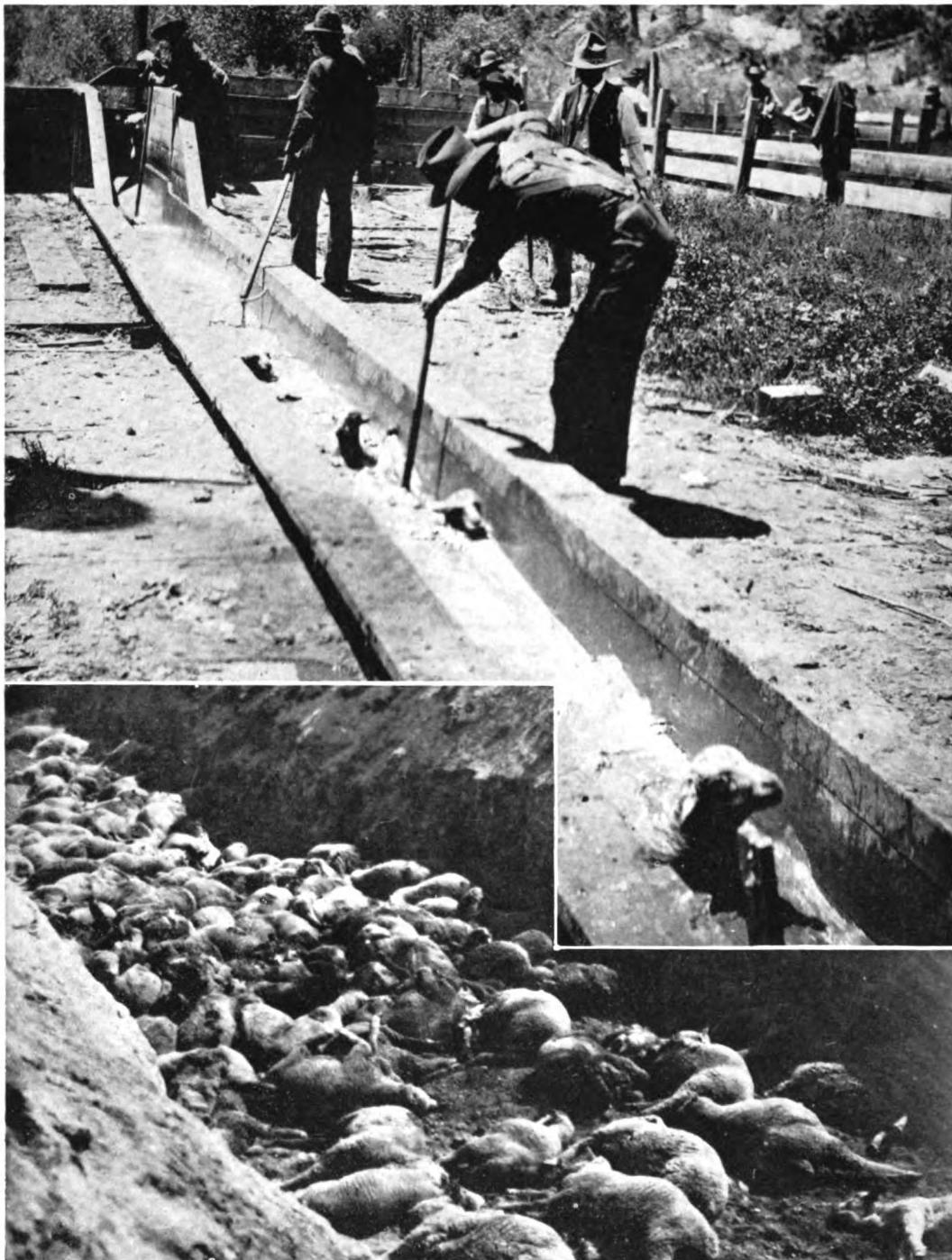


FIG. 96 (*Top*)—Dipping sheep in the Montezuma National Forest, Colorado. Note sheep being pushed into head of trough from corral at upper left; also note dipping hooks to insure complete immersion (pp. 456-58). (United States Forest Service.)

FIG. 97 (*Below*)—Foot-and-mouth disease (p. 456). Flock in Madera County, California, slaughtered and interred during outbreak of 1924. (California State Department of Agriculture.)

several breeds, it has become possible to market lambs direct from suckling their mothers, between early or mid-April and the end of October. Then lambs that were not quite fat enough to slaughter in September and October begin to come from cornfields and farm pastures, as well as the Oklahoma and Kansas wheat fields, up to late December or early January. From that date through April, the feedlot lambs run.

Depending on the rainy season of the Pacific Coast, the first milk lambs come to market from California between March first and April first. This run of lambs is quite heavy for four to six weeks, but breaks off suddenly as the pastures dry up in mid-May. The California shipments have one interesting function in that each season they establish the differential between the milk lambs and the fed lambs that are still being marketed from the irrigated districts of Colorado and Nebraska. They also supply the principal source of interstate commerce for the modern Easter lamb trade.

The Tennessee run begins in late April or early May. At this time of year the Nashville market provides a principal source for spring lambs. Just after this the Kentucky lambs begin to run to Louisville, followed by the first of the Idaho and Washington milk lambs. About the first of June the Virginia and Missouri lambs are ready and two weeks later the West Virginia and Ohio lambs come on. Throughout the month of July, the lambs from the Corn Belt supply much of the demand, supplemented by small runs from New York, Pennsylvania, Michigan, and Wisconsin. The native run ceases about the first of August, and the range runs commence. Idaho and Washington lambs, which have been moving since the end of May or early June, still predominate.

However, a few of the Colorado and Utah lambs start in July and come into their full flow in September. The main marketing of lambs from Oregon, Montana, and Wyoming occurs during September and October.

When the runs from the last three states begin, more than half of the lambs are too thin for slaughter. These are usually sorted out at the market for resale to Cornbelt farms, especially in Ohio, Indiana, Michigan, Illinois, Wisconsin, and Iowa. Such lambs clean up the leaves of the corn, the weeds, and other growth in the cornfields and grain stubble, and later eat the corn husks and some of the grain itself. They are kept in the open until the onset of winter forces their marketing. Hence they supply the trade from early November until mid-January. Some of these lambs that are given grain feeds may not be marketed until late January.

The buyers for winter feeding in the irrigated districts usually begin filling their feedlots in September and October. At the same time Kansas and Oklahoma buyers top off the heavier lambs to graze on the green wheat fields and these, too, come to market in the mid-November-mid-January period. Finally, from mid-January until the feedlots empty in April, the irrigated districts provide the main source of supply.

The maximum profit in these lambs develops just ahead of the California spring run, and sometimes too many feeders attempt to strike this period. Due to rainfall and grazing conditions, the date when California lambs start for market always varies. Consequently the length of time the beet pulp lambs are continued on feed becomes a gamble. Fed lambs often continue to come for a month after the spring lambs start. Sometimes a recovery in price occurs after the first week of spring lambs, so

that the two classes sell at nearly the same level. Since the early 1940's an important factor in the winter lamb supplies has been the Texas lambs, about a year old, which are available from February through April.

#### SHEARING

American sheepmen were normally able to handle most of the labor problems in connection with their flocks through their regular employes, except during the lambing and shearing seasons. In the farming states, farmers, their sons, and their farm hands have done the shearing for small flocks since early days, or they have joined with their neighbors and sheared first one man's flock and then another's until the community was cared for. In pioneer New England, New York, Ohio, and southern Michigan, some Old World customs were preserved and "shearing bees" were not infrequent. Back in 1557, Thomas Tusser wrote of the shearing activities in England:

Wife, make us a dinner; spare flesh neither corn;  
Make wafers and cakes for our sheep must be  
shorn.  
At sheep-shearing, neighbors none other things  
crave  
But good cheer and welcome, like neighbors to  
have.

Sometimes the "jack of all trades" from a country village, or a farmer's son that could be spared from home, "hired out" in the spring to shear first one farm flock and then another until the season was over. Many a boy obtained cash for a small flock by shearing for a neighbor.

In the Colonies, sheep shearing was a social occasion. Some of the customs were traditional from Great Britain—days to which the farmer looked forward for company and cheer. In Shakespeare's time, not too long before colonial settlement here, a holiday attitude was well established.

Let me see; what am I to buy for our sheep shearing feast? Three pound of sugar; five pound of currants; rice. . . . She hath made me four and twenty nosegays for the shearers, three-man song-men all and very good ones; but they are most of them means and basses; but one Puritan among them, and he sings psalms to hornpipes. I must have saffron to color the warden pies; mace; dates, none, that's out of my note; nutmegs, seven; a race or two of ginger, but that I may beg; four pounds of prunes, and as many of raisins of the sun."

In prehistoric days the wool was pulled annually from the sheep as warm weather arrived. At this season it was natural for the animal to "cast" its fleece, but when the wool did not pull readily the locks were cut from the body with knives. It is not known when blade shears were first adopted, but English and Spanish colonists were using them when America was first settled.

#### WASHING FLEECES

For more than two centuries the eastern section of the country washed sheep before shearing. The custom was based on the need for clean wool in the home woolen industries. The fiber could not be combed and spun neatly if too much grease remained. Chemicals were unavailable, and the caustics made from wood ashes, for example, did not dissolve the grease except at temperatures that injured the texture of the wool fiber. The practice was continued long after it was necessary, because wool buyers would deduct one-third of the price per pound of washed fleeces when buying unwashed fleeces. Sheepmen long complained of the unfairness of the practice, for the deduction seemed too great proportionately, even after the Merinos with their heavy yolk came to dominate the wool market.

Powers<sup>48</sup> quotes an attempt of an

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<sup>48</sup> William Shakespeare, *The Winter's Tale*, Act IV, Scene iii, 37-51.

<sup>49</sup> Powers, *The American Merino*, 108-9.

Ohioan, A. F. Breckenridge, to determine the effect of washing. In 1877 he washed fifty-eight sheep and sheared them on June first, while in 1878 he sheared them without washing. The first year he had twelve months' growth of fleece; the second year, eleven months. He added one-eleventh to the weights of the second year to allow for the shorter period of fleece growth, but made no allowance for the decline in fleece weight due to increased age. His three-year-olds averaged to lose 19 per cent of the fleece weight when washed (according to his calculation) or 1 pound,  $14\frac{2}{3}$  ounces; his four-year-olds, 29 per cent, or 2 pounds, 1 ounce; his five-year-olds, 24 per cent, or 2 pounds, 1 ounce; and his six-year-olds the same as his five-year-olds. He found that yolk did not dissolve easily in cold water, and that oily

fleeces which shrink the most in scouring shrunk less in washing because of this lack of solubility.

A wool commission firm of Philadelphia<sup>49</sup> reported that unwashed Merino fleece normally shrank 67 to 70 per cent in scouring, while washed fleece shrank 48 to 52 per cent. This meant a net difference of only one-fifth in favor of the washed wool, but it usually gained one-third advantage in price.

Both brook and pond washing were practiced. The water in the ponds warmed about two weeks earlier in the spring than brook water. In Tennessee pond washing began in early April, and in Kentucky and Virginia, in mid-April.

<sup>49</sup> Powers, *The American Merino*, 110, quotes David Scull, Jr. and Brother, wool commission merchants of Philadelphia, for authority.

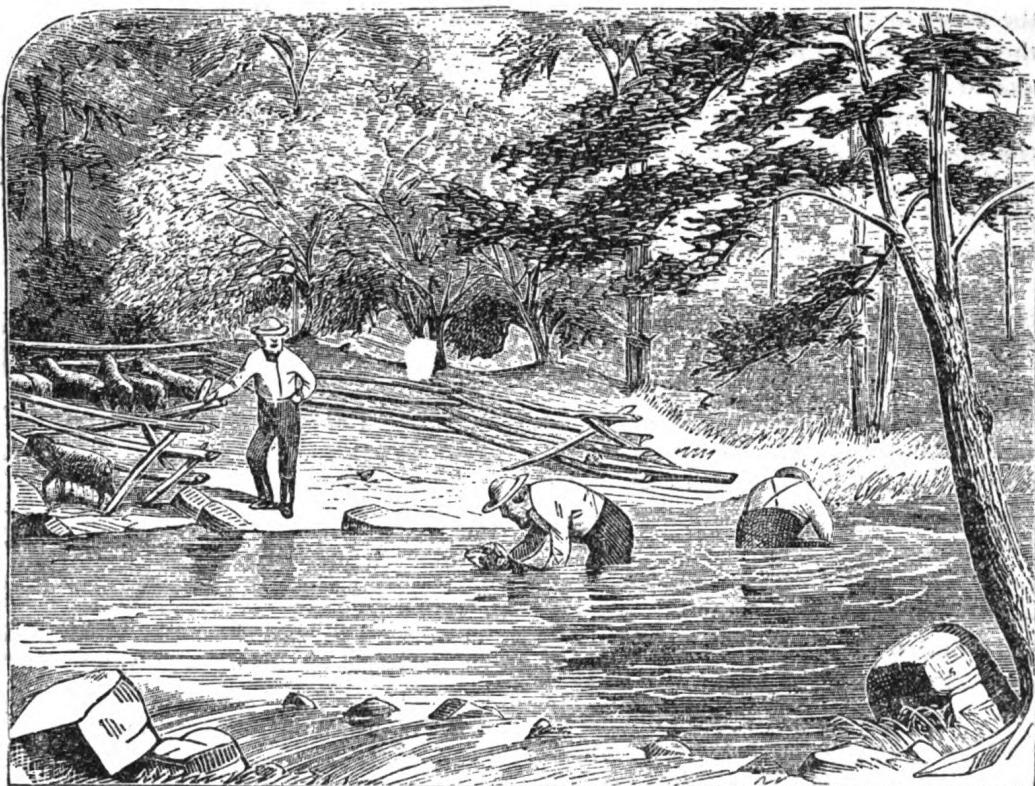


FIG. 98—Pond washing sheep, from the *American Farmers' Stock Book* (Heyer Service.)

In Missouri, southern Illinois, Indiana, southern Ohio, and West Virginia it began the first of May, and in Pennsylvania, New York, middle and northern Ohio, southern Michigan and Wisconsin, and northern Illinois, in mid-May. Brook washing was one or two weeks later, according to the season.

Flockowners would watch the barometer for rising clearing weather and would put the sheep into the water at the beginning of the period, so as to have steady sunshine while the sheep could dry. River washing was more convenient as it bore away the dirt and grease. An especially satisfactory arrangement was made along a clean gravelly beach with a slight slope on which the sheep could be landed. At such a point three sides of a pen were built fronting openly on the water and then a duplicate was built adjoining. The flock would be driven into one, the sheep drawn into the water to be dipped so as to soak up the fleece, and then passed into the second pen where the men would proceed at once with the washing. Sometimes a second flock was driven outside of the remaining pen, dipped, and then placed in the pen so that it could soak longer before the washing commenced.

The washing process itself consisted of swinging the sheep to and fro through the water, after going out just deep enough to float the sheep. When finished they were carried near the shore to expose all the fleece. The men would squeeze out the water between their forearms, drawing the fleeces back lengthwise along the body. A stony beach was preferable to keep away from dust, after which the washed animals were placed on a clean sod pasture to dry. When well organized the average rate of washing permitted four men, with one or two boys to drive the sheep, to wash about 750 sheep a day, take up the fence, and return to headquarters.<sup>50</sup>

Following washing it was important to protect the sheep against cold rains. In good weather washing resulted in a slight loss of flesh but rarely produced fatalities. Sometimes there were deaths, if the weather turned too hot, but they were rare. Occasionally digestive difficulties developed. The sheep would come back hungry from the washing, and often would gorge on some green feed that caused bloat. Rarely heavy milking ewes would develop inflammation of the udder if too long separated from their lambs. The shock of washing nearly always checked the ewe's milk flow for a time and sometimes stunted the lambs.

Several other penalties were paid for washing. If sheep could be shorn before turning on spring pasture, the stimulus



FIG. 99—Brook washing sheep, from the *American Farmers' Stock Book*. (Heyer Service.)

of the new grass gave them an excellent start on next year's fleece. This advantage could not be obtained when they were washed as the fresh grass appeared before the weather was warm enough to dry the fleece. The sheep were not the

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<sup>50</sup> Powers, *The American Merino*, 114.

only sufferers. The sheep washers would catch cold and Powers remarked that whether taken before or after washing, "whiskey did not help much."<sup>51</sup>

Offsetting these disadvantages were three advantages. The washing directly benefited the fleece, the fleece was easier to shear and tie, and the "rule-of-thumb" favoring washed fleeces in price was distinctly profitable. An ethical question was involved in the time allowed to elapse between washing and shearing. When the washing was done thoroughly, less yolk remained in the fleece than was needed to give it elasticity, luster, and good style. If the period was too short the farmer suffered and if the period was too long the buyer had to penalize the seller for too much shrink. The ideal was to leave the sheep in the sunshine until sufficient yolk had been produced to provide the degree of luster and softness found in a normal head of hair.<sup>52</sup> When the sun was hot, ten days were sufficient but when the weather was cool and cloudy, two weeks often proved necessary.

As the settlers poured into the Ohio and Mississippi valleys, the sheep farmers took with them the custom of washing before shearing. New Englanders and New Yorkers carried it as far as Illinois and Wisconsin, and found it practiced in Missouri by families that had come across Kentucky from Virginia. When the various eastern "colonies" migrated to Kansas and Colorado throughout the late fifties and sixties, the washing custom was carried to those territories. Typical operators from all of these states transferred the procedure to Oregon and California where it was used quite regularly before the Civil War. As the flocks changed from a farm to a range basis, washing was gradually abandoned.

The Spanish sheep husbandry of the Southwest never included washing before shearing, due to absence of facilities.

Water was too scarce and far between, and the numbers of sheep were too great in relation to the number of men employed. Extremes of temperature between day and night were also too great when the night winds could strike the wet sheep on upland bed-grounds. Probably the last washing in the range states occurred in the late seventies, when it was still practiced in isolated spots in Colorado and Wyoming. Washing was an essential phase of sheep operations only as long as spinning and weaving were home industries. When they became commercial, or when local scouring mills were established, the need for washing ceased.

#### SHEARING CREWS

At first extra men were hired from nearby localities to help with the shearing on the western range, and they often received as much as eight to ten cents per fleece. But as sheep ranching expanded, bands of organized shearers developed. During the long period that the Spanish controlled the Southwest this practice developed in several special locations. Thus sheep owners from Chihuahua, Sonora, and modern New Mexico drove flocks to near Mexico City in the late seventeenth and throughout the eighteenth centuries, and engaged professional shearers in that vicinity. The wool was sold in Mexico City while the fat sheep went to the butchers.

The long trailing was discontinued when Mexico gained its freedom, but bands of shearers were occasionally organized that would start shearing in Jalisco, Durango, Chihuahua, and Sonora, and gradually work northward. They never reached the Texas or New Mexico settlements, so these colonies

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<sup>51</sup> Powers, *The American Merino*, 107.

<sup>52</sup> *Ibid.*, 115.

gradually developed the method on their own initiative. In California, the migratory shearing system reached its first true routine—shearers starting in the southern part of the state in January and reaching the lower San Joaquin Valley by April or May.

These bands of Mexican sheepshearers soon became well organized and usually stayed together throughout a single shearing season. Powers wrote in the eighties:

Indians or Mexicans frequently go in a club or company, traveling from ranch to ranch, under the command of a captain, who makes all contracts, receives and divides the money, settles all disputes, and subjects all his followers to his command.<sup>52</sup>

In New Mexico the shearers' services were contracted by a *rengenchista*, who was their unquestioned agent and business manager. Sometimes he went ahead seeking work for them—usually he was approached by the flockowner himself. Brisbin reported in the early eighties:

The shearers are a strange set and every year are becoming more numerous. They cut a fleece with marvelous rapidity and want little else than their food and clothing, with sometimes a pipe and a glass of beverage after supper. They stroll in bands, hunting sheep to shear, and there appears to be a strange fascination about such a nomadic life. Sheep shearing is now a regular business . . . and there are men who do little else for a living.<sup>53</sup>

As sheep ranching expanded in the mountain states, bands of shearers began to come north from Texas, New Mexico, and California, shearing sometimes for five cents and occasionally as low as three cents a fleece.<sup>54</sup> Long after the annexation of California the shearing was done by Mexican crews, and the American sheep owners liked them better than the Chinese or occasional Russian or Hawaiian shearers.

The old Spanish landowners in California preferred straight bands of Indian shearers, because they were more careful and made fewer cuts.<sup>55</sup> Powers states<sup>56</sup>

that Indians were more patient and gentle but that they sheared only about three fleeces to the American shearer's five. California shearing prices in the early eighties were five or six cents a fleece, or seven cents without board. Helen Hunt Jackson describes the California shearing vividly.

The shearing shed was a huge caricature of a summer house—a long, narrow structure, sixty feet long by twenty or thirty feet wide, all roof and pillars; no walls, the supports, slender rough posts, as far apart as were safe for the upholding of the roof, which was of rough plank loosely laid from beam to beam. On three sides of this were the sheep pens filled with sheep and lambs.

A few rods away stood the booth in which the shearers' food was to be cooked and the shearers fed. These were mere temporary affairs, roofed only by willow boughs with the leaves left on. . . . There was a brisk wind, and the gay colored wings of the windmill blew furiously round and round, pumping out into the tank below a stream of water so swift and strong, that as the men crowded around, wetting and sharpening their knives, they got well spattered and had much merriment, pushing and elbowing each other into the spray. A high, four-posted frame stood close to the shed; in this, slung from the four corners, hung one of the great sacking bags in which the fleeces were to be packed. A big pile of bags lay on the ground at the foot of the posts. . . . On one of the posts of the shed, short projecting slats were nailed, like half rounds of a ladder.

Felipe ran up these to the roof, and took his stand there, ready to take the fleeces and pack them in the bag as fast as they would be tossed up from below. Luigo, with the big leather wallet, fastened in front of him, filled with five cent pieces, took his stand in the center of the shed. The thirty shearers, running into the nearest pen, dragged each his sheep into the shed, in a twinkling of an eye had the creature between his knees, helpless, immovable, and the sharp sound of the shears set in. . . . As soon as a sheep was shorn, the shearer ran with the fleece in his hand to Luigo, threw it down on a table, received his five cent piece, dropped it in his pocket, ran to the pen, dragged out another sheep, and in less than five minutes was back with the second fleece.

<sup>52</sup> Powers, *The American Merino*, 238.

<sup>54</sup> Brisbin, *The Beef Bonanza*, 120.

<sup>55</sup> Briggs, "The Early Development of Sheep Ranching in the Northwest," 171.

<sup>56</sup> Jackson, *Ramona*, 63.

<sup>57</sup> Powers, *The American Merino*, 238.

The shorn sheep, released, bounded into another pen, where, light in the head no doubt from being three to five pounds lighter on their legs, they trotted around bewilderedly for a moment, then flung up their heels and capered for joy.

It was warm work. The dust from the fleeces and trampling feet filled the air. As the sun rose higher in the sky the sweat poured off the men's faces. . . . After the bag of fleeces is half full, the packer stands in it, jumping with his full weight on the wool, as he throws in the fleeces, to compress them as much as possible.<sup>58</sup>

The arrival of the shearers was a dramatic occasion. On the California *ranchos* it was the outstanding event of the year. Miss Blanchard recalls as a child:

I remember the Mexican sheep shearers galloping up, and it was a time of thrilling excitement. Usually an old woman accompanied them to bake tortillas and to provide them with other Mexican delicacies. They were paid by tickets, so much for each fleece, and at night they gambled with these around their campfires, so at the end of the shearing, it might be only one or two that got any money. There was an overseer who watched the shearers carefully, for it was piece work and the temptation was to work so fast that the sheep were cut more than they should be—a few cuts were recognized as inevitable.

As soon as the fleece was off the sheep, it was tied into an irregular ball, weighed, the weight noted on the fleece and a ticket was given to the shearer. Small bits of fleece (tags) fell off, and the shearing floor was littered with them, which from time to time were gathered up and tied into a ball. These bits were not as valuable as the whole fleeces and went into a different lot. Part of the overseer's job was to see that some shearer did not turn in such a bundle as a whole fleece.

The wool was shipped then, and maybe now, in bags eight or ten feet long, hung upright in a frame, for the purpose of filling the sacks. This also made an impression on me, for one hot day when my father was in the wool sack, catching the balls of wool as they were thrown up and tramping them down to pack the bags solidly, he fainted and it was a problem to get him out.<sup>59</sup>

The first sheep throughout the West in the seventies and early eighties were sheared by California crews of ten to twelve men who worked north and east as the season advanced. As the days, and the fleeces, became drier and dustier,

the rate of shearing would fall off. Powers wrote that a man who sheared sixty sheep daily in the spring would shear only fifty in the fall, though the fall fleece was about half as heavy in actual wool.<sup>60</sup>

When the great eastward movements began in the early eighties, shearing pens were constructed along the trails, and the bands were sheared before they started on the long drive. In 1883, Major W. Shepherd wrote:

Some twelve or thirteen hundred sheep had not been clipped that spring (in California the sheep were then shorn twice a year); it was necessary to take their wool off before starting. The band was driven to a barren plain, where a few tumbledown open sheds guide you to the shearing corral. The first thing to do was to go around and rearrange panels, make fast ties and block holes so as to keep the sheep in the pen. A mixed band of Mexicans and Chinese did the shearing, each man careful not to catch any sheep which, on account of size or wool, was likely to prove slightly more troublesome. A badly boarded floor was all the men worked upon; the fleeces having been rolled up and tied, were thrown outside. A strong wind, bringing clouds of dust, was blowing all over the place. At least 5 per cent of the wool must be lost in this careless, haphazard style of neglecting appliances and saving in first outlay. The fleeces were thrown into a long bag held on a stand, and the bags are then carried to the railway, and either sold to brokers or shipped to an agent in San Francisco.<sup>61</sup>

Most of the shearers other than Mexican were Americans, Irish, English, and Scotch, although by the end of the nineties there was quite a number of Danes, Norwegians, and Swedes, and a few Germans. Occasionally in California and Nevada, Chinese shearers were found. There were also a few Basques or French, but these two latter races preferred herding flocks and becoming sheep owners.

<sup>58</sup> Jackson, *Ramona*, 65–67.

<sup>59</sup> Sarah E. Blanchard, Santa Paula, California. Letter to author, February 18, 1939.

<sup>60</sup> Powers, *The American Merino*, 239.

<sup>61</sup> Shepherd, *Prairie Experiences in Handling Cattle and Sheep*, 151–52.

## SHEARING CIRCUITS

By 1900, Australian shearers were making the circuit, starting in Arizona, California, or Utah, and moving north into Oregon and Washington, or into Idaho and Wyoming, to reach Montana and Canada. Then they shipped back to Australia to shear below the equator during the North American fall and early winter. This practice continued up to World War I, but declined thereafter. American and Mexican shearers who followed the same circuit would often return from Canada or Montana to California for the fall shearing and then go to Arizona where the circuit would start over again.

While the crews were still using blade shears (before 1900) they would go to the flocks on the Arizona desert as early as January. This concentrated a body of men there, and the shearers who came South for this early work became known among the professionals as "Arizona men." Such "white" shearers, whether blade or machine men, never went into Texas or New Mexico where the Mexican shearers dominated, but Mexican machine shearers of later days often worked northward with the "white" crews as the season advanced. After the machines displaced much of the hand work, Texan and New Mexican shearers seldom came North at all. Gradually the Canadian phase of the shearing circuit became too difficult to accomplish, and the depression of 1931-32 put an end to that custom.<sup>62</sup>

There were numerous favorite gathering points for shearers who moved from the South into Wyoming and Montana. In California, the cities of Bakersfield, Sacramento, and San Francisco were popular; in Arizona, Phoenix; in Nevada, Winnemucca; in Oregon, Portland; and in Idaho, Weiser, Shoshone, Mountain Home, and Pocatello. Stray shearers rendezvoused in Billings and

Butte toward the end of May for the Montana shearing of June and July.<sup>63</sup>

An unusual seasonal routing is furnished by Thomas Cooper:

I sheared for (John D.) Holliday from January 6, 1898, to April 14, at Montgomery, Illinois, and South St. Paul, Minnesota. We then went to Casper, Wyoming, and sheared until the latter part of May—from there to Billings (Montana), where we sheared for P. B. Moss and Company, Thomas Snyde, manager. Then (we went) to Len Lewis at Confederate Gulch east of Helena, and we finished near Dupuyer, Montana, July 31.<sup>64</sup>

While shearers now travel by automobile, they did not quit the railroads until after World War I. As late as 1924, single trains would leave Pocatello with seventy-five to a hundred shearers for Montana and Wyoming points. Utah sheep were largely shorn by local men, but there were many "Mormon" crews that made the circuit throughout Wyoming and Montana as well.<sup>65</sup>

When the shearing crews went from ranch to ranch, as was customary in northern Wyoming and Montana before 1900, the first rancher to shear would hitch a four-horse team to a hayrack and haul the crew from the railway station to his shearing pens. When they had finished, the rancher next scheduled would come for them with similar equipment, and they would be picked up by each grower in turn until all of the sheep contracted were shorn. Then the last flockmaster took the shearers back to town.<sup>66</sup> Gradually the number of long shearing jobs at the ranches declined, and two to ten days now cover most of the engagements.

<sup>62</sup> E. S. Bartlett, Chicago, Illinois. Letter to author, December 15, 1939.

<sup>63</sup> Cooper, Letter, December 25, 1939.

<sup>64</sup> *Ibid.* Incidentally, Cooper made enough money shearing that season to pay two dollars per head down on a flock of sheep for fall breeding.

<sup>65</sup> *Ibid.*

<sup>66</sup> *Ibid.*

## SHEARING PLANTS AND MACHINES

During the free range period many sheep owners had neither permanent locations nor headquarters, and the flocks were driven to public shearing pens. These pens were usually located at strategic points along the trail or railroad, and in later years, in the northern states, between the lambing grounds and the summer range. When three-and four-year-old wethers were moving eastward in the eighties and nineties, the wool growers would bring their ewe bands to the shearing corrals first, usually before lambing, and then bring in the yearlings and wethers. The shearing corrals along the great trails were often busy three months at a time, bands of shearers being occupied almost continuously. Cooper states<sup>67</sup> that in May, 1895, he sheared Oregon Trail bands the entire month, handled by A. J. Knollin.

The great revolution in shearing practice came with the advent of the shearing machines. The first patent in this country was issued in 1855 to Palmer Lancaster of Burr Oak, Michigan. This was followed quickly by others. Within ten years, eleven additional names appeared in the patent records—with more than one issued to several of the individuals. Hand, horse, and barber clippers were already being manufactured by 1850 and it was only natural to adapt devices of the sort to sheep shearing. A great deal of the development of shearing machines took place in Australia and England at the same time they were being improved in the United States.<sup>68</sup> The first machines were not adopted rapidly, but by the mid-nineties their adaptability to the big shearing corrals was discovered in California and by 1900 to 1905 the machines were in general use in Arizona. One of the chief figures in popularizing them was John D. Holliday of Chicago. Holliday was the first to make contracts with the flockowner

which included wrangling the sheep, and shearing, tying, and sacking the wool.

Relations between the "hand" and "machine" men were not too good in the beginning. Not only were there lurid arguments as to the relative merits of the two methods, but there was strong personal rivalry between the advocates of each. The machine shearers had much more difficulty with the heavy folds of skin in the necks and thighs of Merinos and Merino-crosses, but they produced a smoother job with less hacks and cuts.

Part of the feeling was racial. The California-Mexican hand shearers were well organized into units and were usually very efficient. They had strong bonds among themselves, and resented any outside attempts to affect their work. Furthermore, they passed through a shearing season with practically no change in personnel. The machine men were distinctly outsiders from their viewpoint, and both Mexican and American hand shearers were so strongly prejudiced against machines that they never changed over, or did so only after long years of competition.

The recruits for the machines were largely men who had never worked with sheep before. They were itinerant laborers who were traveling the country, harvesting Kansas and Dakota wheat fields, picking fruit and hops in California, or working in the northwest lumber camps. They usually had no skill whatsoever with animals, but they adapted themselves to the new machines. In no time at all they became dominant among the traveling shearers of the range states and today they are as typically western characters as the cow puncher.<sup>69</sup>

<sup>67</sup> Cooper, Letter, December 25, 1939.

<sup>68</sup> E. S. Bartlett, *Sheep Shearing*, 47-71.

<sup>69</sup> Cooper, Letter, December 25, 1939.

Many changes in organization came with the adoption of machines. Not that prices changed, for shearers by either method received the same price from the start. Occasionally, however, in the early days the sheep owner had to pay three cents per head more<sup>70</sup> for machines. The use of power led to the development of great central shearing plants. When the machines were first introduced they were installed at shearing points already well patronized, sometimes in pens where hand shearing had been conducted. Large plants became the rage. At Firebaugh, California, an eighty-man plant was built for Miller and Lux, while at Buttonwillow they placed a fifty-man plant in operation before 1906. Milford, Utah, had a seventy-man plant by 1905, with eighty machines later, and forty-man or thirty-man plants were scattered over the other states.

One of the largest single plants in Wyoming was established by the Cosgriff Brothers at Fort Steele about 1903. It employed thirty American and thirty Mexican shearers. At Casper were located three large pens, each utilizing forty men, with a similar one at Old Wolton. In Montana, the largest shearing centers were at Billings, Big Timber, Miles City, Havre, Chinook, and Great Falls.

The forty-man plants would turn out four thousand to forty-eight hundred head per day, though the rate was not greatly increased through the introduction of power. From 1889 to 1900 a forty-man hand-shearing plant at the mouth of Casper Creek in Wyoming had turned out four thousand to forty-five hundred sheep daily<sup>71</sup> from April first to June first. In southern Wyoming and northwestern Colorado the crews were smaller still. Both Robert Taylor and Miller and Hurt at Rawlins each operated twenty-man crews in the

eighties. The Miller and Hurt pens were at the spring (just north of Rawlins) that now makes the focal point for the golf course. The Edwards Brothers' pens south of Rock Springs operated with twenty shearers also.

The large plants reached their peak about 1914 or 1915, but were rather unwieldy and by 1920 the most efficient places used only twenty or twenty-two machines. Finally as automobiles and trucks increased, portable plants were developed with eight or nine men.<sup>72</sup> Two classes of these portable plants sprang up. The first was owned jointly by the shearers themselves. Considerable difficulty arose under this plan, however, due to differences of opinion over the scheduling of work and the direction of operation. The second class involved an individual contractor, who owned the power plant but whose shearers owned their own hand pieces, combs, and cutters. Such a contractor charged the shearer a small price per head for the use of his machinery. These individual contractors operate with crews of six, eight, ten, or twelve shearers.<sup>73</sup>

Blade shearing has not disappeared entirely. Many Wyoming sheepmen prefer hand shearing because machines take the fleece so short that the ewes cannot withstand late snows and cold rainstorms. Apparently they believe that the thicker combs cannot substitute for blade shearing. Along the Union Pacific in Wyoming and the Denver and Rio Grande in Utah, several corrals are still operated with blade shearers. Evans estimated in 1939 that 90 per cent of the sheep in Wyoming and Nevada were still shorn with blades, while 90 per cent

<sup>70</sup> Cooper, Letter, December 25, 1939.

<sup>71</sup> *Ibid.*

<sup>72</sup> A. A. Evans, Butte, Montana, President, Sheep Shearers' Union of North America. Letter to author, December 22, 1939.

<sup>73</sup> *Ibid.*

of the sheep elsewhere were shorn by machine.<sup>74</sup>

#### BOARDING SHEARERS

Rates for shearing were quite uniform in the early days—wethers, ten cents; ewes, lambs, and yearlings, nine cents. When shearing was done on the ranches rather than at the big shearing corrals, the rate was usually eight cents per head, plus board. Board was quite an item as shearing creates a healthy appetite. When the shearers paid board themselves the rate was usually one dollar per day—but often this did not cover costs. At the ranch table, shearers took precedence over everyone else. Ranchers were supposed to furnish enough places so that all the shearers could sit down together. When there were not enough places for the shearers and the family, or regular help, the latter (including guests) had to wait for the second table.

Throughout the hard times of 1893–97 shearing rates dropped as low as five to seven cents per head, and before 1914 they never exceeded an average of ten cents, with the shearer paying for his board. During World War I, however, prices advanced to twenty to twenty-two cents per head, and the flockmaster furnished board in addition. The labor shortage pyramided prices still higher during World War II. In 1945 the rate paid the shearer ranged from twenty-five cents per fleece early in the season to as much as forty cents in April and May, with board. In farm flocks the maximum reached forty-five cents per fleece, food included.

#### HAULING CLIPS TO MARKET

Hauling the wool from the ranches and from shearing pens located away from the railroad was a big task. Before motor trucks, so much time was required for transport that a special service in wool freighting was developed. Economy

of time demanded large loads, and frequently three or four heavily loaded wagons were attached one behind the other with five to twelve pairs of horses furnishing the draught.<sup>75</sup> Many wagons were loaded so heavily that they turned over or had to be lightened by dropping a few sacks.

Oldtimers in southwestern Idaho tell of trail roads out of the Owyhee River and Reynolds Creek regions that were marked by big sacks of wool bearing Robert Noble's<sup>76</sup> brand. Perhaps the teamsters loaded too heavily; perhaps they were stuck in unexpected mudholes; but throughout the eighties and nineties this was a common sight. Either the teamsters relied on the next driver to pick up the sacks or planned to load lighter the next trip so as to recover them themselves.

Boise, Idaho; Casper and Rawlins, Wyoming; Billings, Montana; Pendleton, Oregon; San Angelo and Kerrville, Texas; Albuquerque and Las Vegas, New Mexico; and Flagstaff and Holbrook, Arizona, were famous wool freighting centers.

#### SHEARERS' ORGANIZATIONS

Labor troubles developed early. One irritating practice was the custom of striking just when the sheep were ready

<sup>74</sup> Evans, Letter, December 22, 1939.

<sup>75</sup> Wilcox, "Sheep Ranching in the Western States," 80.

<sup>76</sup> Robert Noble was the outstanding sheep operator in early days in the Owyhee country of southwestern Idaho. He purchased his first sheep in 1875 from G. C. Johnston, the sheep-raising mining-engineer of Silver City, Idaho, who was pioneer in this business. Noble was an efficient sheepman by any standard and increased his flocks to more than sixty thousand ewes while he handled as many as eighty thousand wethers concurrently during his peak years. He marketed his wool so skillfully that when he retired in 1904, he not only owned much productive city real estate but is reputed to have received the largest single check for sheep ever written—over a half million dollars—from Haley and Saunders of Salt Lake City.

for shearing, or after they were partly shorn. Taking advantage of the awkward position in which they would place the flockmaster by quitting, they gained many concessions, frequently unwarranted. Not all flockowners, of course, were correct in their attitudes. But the racketeering methods often employed were just as questionable from an ethical standpoint. Sometimes the demands were sound; frequently they were trivial. Several growers experienced strikes because there were no toothpicks on the table or because there was no cheese, canned milk or jam at a particular meal. One Wyoming feminine flock operator stated that thirty-four men refused to shear until she had sent forty miles to town and brought back a particular brand of marmalade they favored.<sup>77</sup> Yet her table bore the reputation of surpassing anyone else's within a hundred miles.

Attempts to unionize sheep shearers originated in Montana when a local union for the state was started in 1894. A second local was organized in Casper for Wyoming in April, 1895. Anxious to test their power, the leaders called a strike prematurely, in late April, and the organization was dissolved.<sup>78</sup> One of the organizers of this union was M. C. (Slim) Forrest, who continued active among the shearers. Matters remained quiescent until the spring of 1903, when another meeting was held and delegates from Wyoming were selected to attend an organization meeting at Butte, Montana, in August of the same year.<sup>79</sup> Delegates were also present from Washington,<sup>80</sup> with a few scattering representatives from Idaho and Montana. As a result, Sheep Shearers' Union No. 1 of North America was set up, with M. C. Forrest as president.<sup>81</sup>

The union always included both blade and power shearers, the same wage rate prevailing for both. The membership

varied from year to year, between one and two thousand men, but it has averaged from fourteen to fifteen hundred. While the membership is widely scattered geographically, the largest number live in Utah. The union has also been very strong in Idaho and Montana, and at one time was an important factor in Arizona. Originally an independent organization, in 1932 it became a division of the Amalgamated Meat Cutters and Butcher Workmen of North America, with membership in the American Federation of Labor. At various times attempts have been made to organize competing shearers' unions—sometimes on a local or state basis, as in California in 1939, or as a branch of CIO in Montana and Wyoming the same year. In some cases local shearers' associations have had support from the wool growers themselves, but none of them have survived.

It has always been difficult for sheep shearers to organize. Racial differences and local variations in season and customs handicap them in getting together. Furthermore, both union and non-union crews follow the same regulations, including the eight-hour day and fixed rates of shearing. The majority of union members are of American birth, although many in Utah are of Scandinavian descent.

In general the rates are fixed by the shearers and local committees, but they vary between states and between different sections of each state. Since affiliation with the American Federation of Labor, more power over shearing rates has been

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<sup>77</sup> Mrs. A. J. Cunningham, Santa Fe, New Mexico. Interview with author, March 23, 1941.

<sup>78</sup> Cooper, Letter, December 25, 1939.

<sup>79</sup> Evans, Letter, December 22, 1939.

<sup>80</sup> Bartlett, Letter, December 15, 1939.

<sup>81</sup> See General Appendix B.

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granted to the national president of the union. However, most of the bargaining is still done with local committees of growers. At different times attempts have been made by flockowners to develop incentives for careful or rapid and efficient work, despite objection by the labor leaders. In fact, some growers believe that shearers prefer to delay their work in order to make it last longer,<sup>82</sup> though only their board is gained thereby.

On occasions the union has signed contracts with state wool growers' associations, but uniform shearing prices have never been satisfactory, due to differences in cost of getting shearers to the sheep or vice versa, or of arranging shearing schedules, and of getting wool to the market. Furthermore, there has been a long-time tendency to make each state association less of a business organization and more of a service agency. This has sometimes resulted in disadvantage to the individual grower, since he has had to deal with a highly organized labor unit. But on the other hand the union membership has never been large enough to monopolize the work. There are many more shearers outside the union than in it, and there is nearly always some degree of local competition for each rancher's contract.

One factor adversely affecting the power of the union has been the decline of the big machine shearing plants. It is easier to unionize specialists than non-specialists. In the big plants the shearer's job was highly specialized, the wrangling, tying, and sacking all being handled by others. With the portable plants now in common vogue, the work is more generalized, the crews are more difficultly reached by the organizers, and in the case of shearers working with small contractors, there is less sense of limited responsibility. Sheep shearing away from the railroad and other big centers does

not appeal to the laborer of the type that has been the chief supporter of the union. Partial ownership, or partial operating interest, among the "portable crews," also defeats the strictly "labor" viewpoint.

A cooperatively-owned and controlled subsidiary of the sheep shearers' union, known as the Sheep Shearers' Merchandise and Commission Company, has handled supplies. One of its chief activities is the manufacturing of the J. B. shearing machine, invented by E. S. Bartlett and "Red" Jensen. From 1914 to 1924 this subsidiary was under the management of Bartlett and developed a large volume of business.

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Even during the period that the West was finally being settled, the evolution of the modern range industry was progressing. Trailing back and forth between winter and summer ranges, simplification in the organization of the industry, the development of the herder's wagon, the adoption of the present-day breed of sheep dog, the practice of herding under fence, the use of the shed lambing system, the switch to the ewe-and-lamb method of production, the geographical and seasonal adjustments in time of lambing and marketing, the abandonment of the washing practice before shearing, the organization and migration of the shearing bands, the adoption of power shearing, and finally the unionization problems among sheep shearers, all fell into their present pattern from 1880 forward. Sheep husbandry is the oldest form of livestock production, but the practices making it profitable are extremely modern.

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<sup>82</sup> Cooper, Letter, December 25, 1939.

*What necessary and useful creatures sheep are!  
The patriarchs of old placed their chief earthly treasure  
in them! . . .  
By their commodity and profit . . . they sustained their  
families.  
. . . Abraham, Lot, Jacob and others—all of the great men—  
Were not a little sedulous about their flocks and herds.*  
—Josiah Richardson, "The New England Farrier  
and Family Physician," 1747

♦ 19 ♦

## Financing the Sheep Business

DESPITE the astounding development of the American frontier, progress would have been still greater had it not been for restricted capital. Money was a secondary objective for Indian traders. Their savage customers valued useful or decorative items more than currency, while the articles obtained from Indian barter could be exchanged for necessary trading stock. Likewise, trappers and hunters who lived next to Nature needed only the implements of their calling, while the pioneers of the covered wagon were traditionally short of financial resources.

But the commerce between the newly-opened regions and the markets of the East required capital. As the frontier advanced the distances became greater to the older markets, and the supply of civilized necessities more difficult and expensive. Hence, the more widely the West became occupied, the scarcer became credit in relation to requirements, and the more difficult the securing of loans.

Interest rates were so high that only businesses which possessed speculative characteristics, or whose selling prices and costs of operation or production were still unstandardized by competition, could attain success. Adequate security for loans as measured by present-

day standards was never obtainable, and the success of the livestock industries, and of the financing institutions that served them, depended on stalwart stockmen whose word surpassed their bond.

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On the Eastern Seaboard farm flocks were first financed from previous earnings or real estate mortgages. British sheep were sometimes imported into the plantation colonies with other livestock or with British merchandise and implements, and were paid for out of the tobacco crop, the cotton crop, or ships' stores. Most deals were handled by Colonial merchants as intermediaries, who thus became financing agents. These men usually advanced the plantation owner his necessary expenses during the year, and then recovered their outlays from the annual crop when it was marketed. Wool seldom entered into the payments, for tobacco and cotton were the planters' cash crops. The number of sheep imported, except into Maryland and Virginia, were inconsequential from a financing standpoint.

In the northern colonies, credit was less widely used. Most sales were for cash, and the British emigration and colonizing companies promoting the settlements usually had an agent—often

a colonist himself—on whose property the imported sheep and other livestock were held until sale. The demand for sheep and cattle was so great in the North, though, that sales were quickly made. Colonial farmers actually paid for shares in individual cattle and sheep in order to get the necessary livestock supplies. Penalties for debt were great, and joint ownership of animals provided a means of obtaining livestock for those with insufficient funds.

In the Southwest an entirely different procedure was followed. The large flocks were owned by old Spanish families and the small operators obtained bands on a partnership basis. Often the latter grew into independent operators themselves. In general, bands of ewes were farmed out to small *rancheros* on the *partido* system. The flockowner took a mortgage on the land and water, or occasionally other security, and the *ranchero*—the *partidario*—guaranteed the owner a definite return, usually on a five-year basis. All taxes and other expenses were paid by the *partidario*.

While the types of contracts varied somewhat<sup>1</sup> one of the most widely used required an annual return to the owner of 20 per cent of the number of sheep held in partnership. This return was in the form of merchantable *carneros* (animals suitable for slaughter, usually wethers). As the quality and quantity of wool increased the owner also received annually a pound, and then two pounds, of wool per head, on the basis of the original number of sheep provided. Before 1880, however, this wool requirement was impossible, since it would have taken the entire clip. At the end of the five year period, the *partidario* would deliver to the owner a number of sheep equal to those received at the beginning of the contract, of the same age, class, and condition.

Other contracts provided no rental,

but double the number of sheep of like age, sex, and condition at the end of the five year period, the *partidario* to pay all expense, including the taxes and guarantee of delivery, for which he furnished security in accordance with the contract.<sup>2</sup> Many writers have deplored the near-peonage in which the *partidarios* were held under these arrangements,<sup>3</sup> but it was warranted by custom and law and was handled humanely in the majority of cases. Such peonage as existed had nearly vanished by 1885 to 1890, except at the most isolated *ranchos*.<sup>4</sup> Throughout the last half of the nineteenth century, hundreds of small flocks were established in this way.

#### EASTERN FINANCING

Until World War I, breeding flocks throughout the farming states were financed by either real estate mortgages or bankable notes.<sup>5</sup> In some states—Ohio and Michigan, for example—chattel mortgages were used occasionally, but only as a last resort. When a farmer borrowed on a chattel mortgage, it was locally considered proof that all other resources had been exhausted.

During the period preceding the Civil War, some flocks in New York and New England were financed on open notes without security, the dependability of the borrower being well established. In Pennsylvania and Ohio, however, the custom developed of demanding an additional signature on the contract, thereby creating a "bankable note." This kind of note was dependent on one or

<sup>1</sup> Powers, *The American Merino*, 233. See Statistical Appendix, No. 6.

<sup>2</sup> Iden, Letter, September 20, 1938.

<sup>3</sup> Lummis, *Land of Poco Tiempo*, 19–20.

<sup>4</sup> Dillon, Letter, October 4, 1938.

<sup>5</sup> C. R. Arnold, Production Credit Manager, Farm Credit Administration, Washington, D. C. Interview with author, March 24, 1941.

more good citizens' endorsing a neighbor's paper, with full responsibility but no reward other than the virtuous feeling arising from a good deed. During hard times, it was very difficult for prospective farm sheep buyers to obtain a security signature. Somewhat later, two additional signatures to that of the borrower were required, but the first endorser always had to carry the load.

Under this custom, the bankers would usually act as clerks at the local livestock sales, and when advances were necessary, the banker could immediately determine whose name would prove acceptable on the note. The bankers would discount the interest on the note at 10 per cent when the money was advanced, and then charge 10 per cent on the face of the note after maturity.<sup>6</sup> Such high interest rates, as well as the discount, furnished good profits for sheep and general livestock financing.

Gradually the early prejudice against chattel mortgages for livestock loans abated, and they were used widely on fattening animals where the stockman owned the necessary feed. On breeding stock east of the Missouri River, it was 1934 before states other than Wisconsin and Minnesota adopted chattel mortgage loans. And in these states they were employed largely with dairy stock,<sup>7</sup> while in the South chattel mortgages were restricted principally to mules and machinery. The adoption of the chattel mortgage for security removed the embarrassment of asking friends to endorse notes, and by 1940 had replaced that custom almost universally from Pennsylvania and New York westward.

#### FINANCING BY OVERDRAFTS

The rapid increase in sheep west of the Missouri after the Civil War required greater flexibility in financing than had existed previously. Sheepmen had to be financed by the local banks almost en-

tirely. Specialized livestock loan companies did not exist in the West previous to 1900, while breeding sheep loans by such companies were not made until 1915.<sup>8</sup> Most banks were small and their efforts had to be supplemented by livestock commission houses and wool buying firms, to whom the products were consigned for sale.

The methods of local banks were both simple and interesting. When L. H. Hamilton of Montana went into the Judith Basin about 1880, he arranged for his financing with the bank of Duer and Collins at Fort Benton. He was given a line of credit and a checkbook, but he signed no note nor gave no mortgage. His expenditures were carried as an overdraft at the bank and his account was not squared until he sold his wool in the summer. The interest rate was 1½ per cent per month. When everything was settled, the junior partner in the bank, Mr. Collins, told him how many additional ewes he could buy the following fall and gave him another checkbook. "That is the manner in which the old-time sheepmen were financed in . . . Montana."<sup>9</sup>

While this would seem hazardous for modern business, the banker knew his borrower intimately. Population was sparse, and the few commercial bankers understood the nature of the various businesses within the state. Bank officers relied on the character and ability of their clients, and open notes or simple overdrafts were normally handled with safety.

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<sup>6</sup> E. L. Mullendore, President, The Production Credit Association, Wichita, Kansas. Interview with author, March 24, 1941.

<sup>7</sup> Arnold, Interview, March 24, 1941.

<sup>8</sup> Arthur H. Marble, President, Stock Growers' National Bank, Cheyenne, Wyoming. Letter to author, March 24, 1941.

<sup>9</sup> Sam Stephenson, Former President, First National Bank, Great Falls, Montana. Letter to author, May 28, 1941.

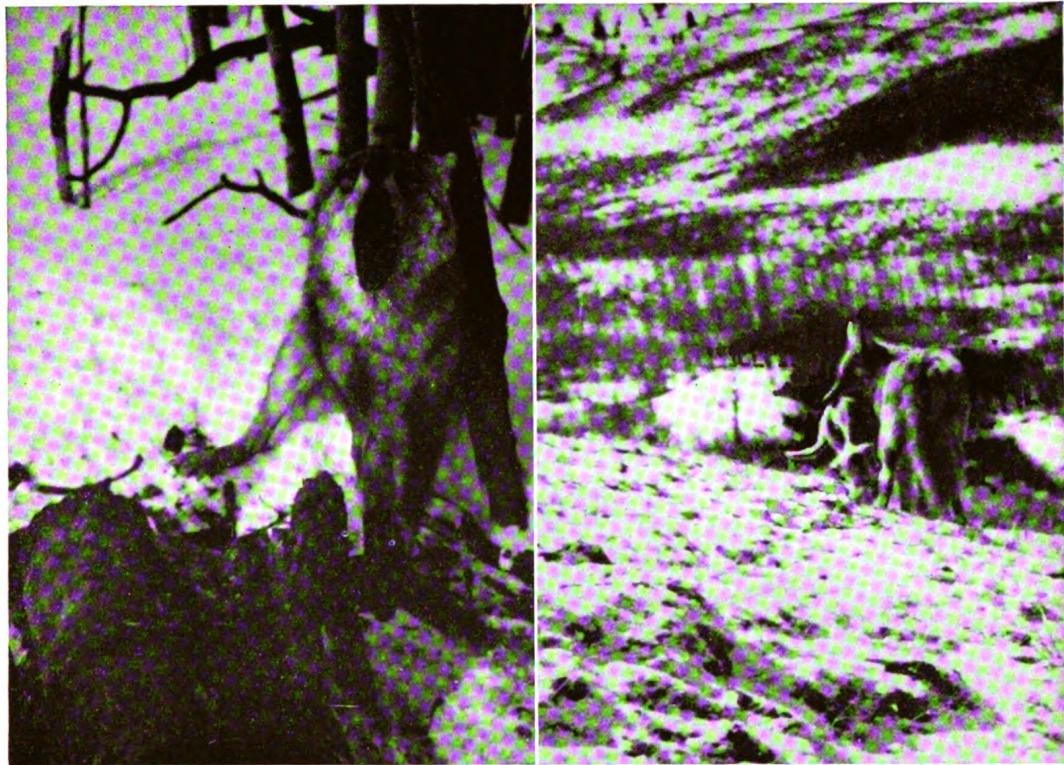


FIG. 100 (Left) —Trapped coyote resents photographer (pp. 475-78). FIG. 101 (Right) —Raider of the lambing camp. (Belden Photos.)



FIG. 102—Remains of 193 sheep killed in one night by two dogs. (Photo from *The Breeders' Gazette*.)



FIG. 103—Sheep love the high altitudes. (Belden Photo.)



FIG. 104—Morning on the summer range—sheep scattered for grazing. (Belden Photo.)

Sheep growers operated at a minimum of expense—with low labor costs, no land rentals, nominal taxes, and unlimited land and feed available. Allowing for the growth of the wool and the increase in the flock, almost every loan could be expected to pay out as long as the character of the sheepmen was sound. The banker could expect him to take his sheep to a range with abundant feed, water, and shelter, and by diligence in handling his flock meet the loan when due. Even after the winter of 1886-87, most of the pioneer bankers of Montana and Wyoming made further credits available for their customers, who ultimately paid in full. However, the influx of another type of people who did not "do business that way" forced a change in the custom.

#### SPECIALIZING IN SHEEP LOANS

One of the first institutions in Wyoming to make sheep loans was a private bank in Rock Springs which started about 1888.<sup>10</sup> Until 1891, the interest rate through western Nebraska, Colorado, Wyoming, Montana, and the Dakotas was 1½ per cent a month and in southern Wyoming it was still at that level in 1892.<sup>11</sup> The cause of the high rate was not the risk—for very few sheep loans remained unpaid—but rather the competition for the available capital.

The first large institutions to specialize in sheep loans were Salt Lake City banks which were operating in Utah, Idaho, and western Wyoming in the mid-nineties. Open notes or overdrafts were the most common form of financing used.<sup>12</sup> The terms of their loans were liberal but their interest rates were high. Right after the Civil War, loan rates reached 30 per cent (2½ per cent per month) in certain sections of the West where growers were supplying meat for Indian contracts or army consumption. This exorbitant rate lasted only a short

time, however.<sup>13</sup> In Colorado and Wyoming the general banks did not take sheep paper until much later than the Salt Lake City banks, although they operated contemporaneously with them on cattle paper. Livestock loans were regarded as the best possible risks, since increases in weight or additional growth of fleece made the collateral more valuable.

#### SECURITY FOR SHEEP LOANS

When bankers began to use notes the system became more complicated, although it was safer from an investment standpoint. A direct example of the manner in which the local banks handled their loans may be taken from the operation of the Casper National Bank at Casper, Wyoming.<sup>14</sup> In 1889 DeForest Richards and A. J. Cunningham<sup>15</sup> formed the Richards and Cunningham Company, Bankers, (predecessor of the Casper National Bank) with \$25,000 capital. They would loan a specified

<sup>10</sup> Frank Connor, senior partner, John Clay and Company, Chicago, Illinois. Interview with author, April 9, 1941. The private bank in Rock Springs was organized as the Sweetwater County Bank, with a capital of twenty-five thousand dollars and Augustine Kendall as manager. Later it became the First National Bank of Rock Springs, and is now the First Security Bank. Sheep loans were handled the first few years because of the slowness of other business development, as reported in the *Employe's Magazine*, U.P.R.R., May, 1927. Other banks financing sheepmen included the Cosgriff chain, J. D. Hugus and Company of Rawlins; J. C. Davis, President, First National Bank of Rawlins; the Stock Growers Bank, Cheyenne; Larabie Brothers, Deer Lodge, Montana; Thomas Marlow, First National Bank, Helena, Montana; T. C. Power, Helena, Montana.

<sup>11</sup> L. E. Vivian, Rawlins, Wyoming: Interview with author, July 26, 1940.

<sup>12</sup> J. L. Driscoll, President, First Security Bank of Idaho, Boise, Idaho. Letter to author, June 6, 1941, quotes L. L. Ormsby, early wool grower and trail sheep operator.

<sup>13</sup> Dr. Harry J. Jordan, Professor of History, San Diego State College, San Diego, California. Letter to author, May 23, 1941.

<sup>14</sup> Cunningham, Interview, March 23, 1941.

<sup>15</sup> See Biographical Appendix, A. J. Cunningham.

amount to a flockowner, taking a chattel mortgage that covered all sheep, bucks, equipment, horses, wagons, and harness. In addition it included all wool sheared and all lambs dropped. The notes would run for six months or a year, and in very rare instances for eighteen months or two years. The majority of paper up to 1915 ran for the two shorter periods, and was renewed when necessary. At first the company discounted through DeForest Richards' bank at Douglas or at Bartlett Richards' bank at Chadron, Nebraska, which points in turn discounted with the Omaha National Bank. Later the Casper business was handled directly at Omaha.

The Richards and Cunningham Company would take the grower's note. Then they gave a note to the Omaha National Bank for a similar amount, and attached the flock owner's note as security. These notes were deposited with the Omaha National Bank, which forwarded the money. Whenever the Omaha National became overloaded, it would issue its note to a Chicago or New York bank, rediscounting with them, and sending on the notes from the Richards and Cunningham Company as security for their own. Quite frequently the Omaha National carried overdrafts from Richards and Cunningham because of personal friendship of Senator Ezra P. Millard, president of the Omaha bank. This accommodation proved extremely helpful in days of sudden local financial crises and slow communication.

Breeding loans usually required several years to work out—ten to fifteen—as flockmasters would wish to expand their flocks before finally settling their notes. More sheep would be purchased, more improvements put in, and more money loaned. When expansion was limited by grass, many sheepmen improved the quality of the flock through better bucks, culling of ewes, and heavier-fleeced off-

spring. In rare cases, when neither expansion nor improvement was attempted, the borrower paid off the loan in three to four years.

About 1900 most loans on range breeding flocks were reduced to a six months' basis. Much of the money was put out on open notes, but when security was necessary the entire flock and equipment would be utilized. The value was established in the fall, after the marketing was completed (usually October or early November). The loan would be figured on a specified amount per head, with additional funds for expenses during the six months' period. Ordinarily the grower would have sufficient range and hay on hand to carry his flock through the winter, but sometimes, following a bad season, grain or cottonseed cake had to be purchased.<sup>16</sup> In April or early May the loan would be renewed with additional money for running expense. Most growers would sell their wool in June or July and reduce their notes. Sometimes the note was rewritten in April to mature in part at shearing time, and the remainder on November first.<sup>17</sup> Final settlement was made when the lambs and the cull ewes were marketed.

During 1915–23 many Northwest growers took advances from wool buyers on their clips before shearing, which money would be used for expenses. Technically these advances constituted a sale of mortgaged property, though shorn wool was not always mentioned in the contracts. Some of the livestock loan companies financing the West during this period had to exert considerable pressure to straighten out this situation, and there were "near law-suits" between several local banks and growers over

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<sup>16</sup> Ford Hovey, Occidental Building and Loan Association, Omaha, Nebraska. Letter to author, May 27, 1941.

<sup>17</sup> *Ibid.*

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the practice. It was only when the entire postwar depression hit that the recalcitrant growers became willing to apply their full wool advances or sales to their mortgaged indebtedness.<sup>18</sup>

Well-managed loans would leave a balance in favor of the grower,<sup>19</sup> but those who desired to expand would borrow a larger sum on the flock each fall.<sup>20</sup> Most loans in the eighties and early nineties were confined to breeding flocks.<sup>21</sup> Feedlot loans, especially in such states as Washington and Idaho, were neglected.<sup>22</sup>

The security phase of these loans was discussed by Stephenson:

During all the time I was president of the First National Bank of Great Falls . . . 95 per cent of the loans we made to sheepmen were . . . on their promissory notes without security. We took security only after something happened so that we considered the customer in a hazardous position financially. . . . When security was taken, it was by chattel mortgage.<sup>23</sup>

In the early 1900s, however, northwestern banks began to replace unsecured financing with chattel mortgages, though it was nearly 1920 before these institutions began to inspect the sheep to determine the volume and quality of security. While some inspections were made during the World War of 1914–18, actual counting and grading of sheep was not undertaken until 1919. Driscoll writes:

During 1919 and the early twenties I had some very unpleasant experiences trying to get actual counts for the Live Stock Exchange National Bank of Chicago. Growers generally represented the procedure and the local banks (where the loan originated) did not cooperate, to say the least, to the fullest extent in encouraging growers to have these inspections made.<sup>24</sup>

On the same point, Stephenson amplifies:

For fifty years bankers in this state (Montana) have recognized the fact that financing sheep loans is more or less of a hazardous business, but up until the last few years the bankers would charge a rate of interest high enough to cover the hazard.<sup>25</sup>

The attitude of western sheep owners

who had always stood by their word is understandable. Not only did they resent the apparent questioning of their honesty and ability to meet their loans, but counts sometimes were claimed to cause weight shrinkage when the band was worked too much.<sup>26</sup> One Montanan expressed his view of furnishing security:

If I sign an open note I feel that I owe the bank the money I have borrowed. If instead I give as security a chattel mortgage on the sheep I own, I feel that the banker is taking a risk with me in the fluctuation of prices, and his claim can be satisfied by taking over the sheep for what they are worth in case prices drop. Chattel mortgages have been demoralizing to men who are accustomed to making their word good.<sup>27</sup>

<sup>18</sup> Driscoll, Letter, July 30, 1941.

<sup>19</sup> Connor, Interview, April 9, 1941.

<sup>20</sup> *Ibid.*

<sup>21</sup> R. Brackenbury, La Jolla, California. Letter to author, March 19, 1941. "I was made vice president of the Carbon (Wyoming) State Bank in 1891. . . . Our capital was not very large—twelve thousand dollars. The interest rate was simple to figure—1 per cent per calendar month. Carbon being a coal mining town, we made enough out of exchange on drafts sent to Finland, Lancashire, Cornwall, etc., to pay the running expenses of the bank. . . . The deposits ran up to a hundred thousand and our little bank was successful. I do not remember our taking any mortgages. We used to loan money to stockmen for haying, living, and so on, and were repaid when the stock went to market. Sheepmen to whom we loaned repaid partly from wool and partly from lamb shipments. . . . After I went to Denver in 1898 I resigned and sold my stock for three hundred dollars a share—three times its cost."

<sup>22</sup> Driscoll, Letter, July 30, 1941.

<sup>23</sup> Stephenson, Letter, May 28, 1941.

<sup>24</sup> Driscoll, Letter, July 30, 1941.

<sup>25</sup> Stephenson, Letter, May 28, 1941.

<sup>26</sup> Driscoll, Letter, July 30, 1941. "I never knew of a loss of any kind in a sheep outfit due to inspection counts, and I have myself counted thousands of sheep and have had other live-stock inspectors count hundreds of thousands more. . . . (Sometimes inspectors) have run the fat off of several bands of ewes, in years gone by, counting and recounting the same band, because a few isolated growers who were short in their count, or, in other words, had mortgaged more sheep than they owned, tried to get the same band counted several times in order to make good their mortgage numbers."

<sup>27</sup> Senator Charles H. Williams, Former President, Montana Wool Growers' Association, Deer Lodge, Montana, quoted statement by Paris Gibson, Great Falls, Montana, at the Montana Wool Growers' Association Convention, Billings, Montana, January 16, 1921.

One outstanding lesson from experience with sheep loans was that it mattered little whether a client was financed on a plain note, a chattel mortgage, or on a partnership basis. If his word were good the bank got its money, if it were not, the bank "got stuck."

#### CONSTRUCTIVE PATERNALISM

There was a paternalistic side to the relation of many bankers and their clients. A. J. Cunningham was such a man in Wyoming while Charles Schreiner<sup>28</sup> underlaid the great sheep development of the last fifty years in the Kerrville-San Antonio-Del Rio triangle of Texas. Captain Schreiner's bank was established in 1869 and he began handling wool before the railroad arrived in 1887. His loans covered Edwards, Val Verde, Kimble, Sutton, Gillespie, Mason, Kerr, Bandera, and Kendall counties. This old cattle country held a prejudice against sheep, but Captain Schreiner's lessons in profits gradually swung them into favor.

I remember a ranchman coming to him (Captain Schreiner) for a loan. Father asked him what he wanted to do with the money. He answered, "Buy cattle." Father told him, "If you will put half the money in sheep, I will let you have it." The ranch man replied, "Hell no, I hate sheep." So Father refused the loan. Later the rancher returned and said, "O.K., I'll try the damned brutes." After a few years he was one of our largest sheep ranchers.<sup>29</sup>

Because of his sound counsel and his originating the present method of handling wools on commission through local warehouses in Texas, Captain Schreiner has frequently been designated as the "Father of the Texas Sheep Industry." Loans made by him were secured by the sheep and other livestock, and usually by the owner's ranch. These were actually "capital loans," as the borrower would receive the full value of the sheep, the ranch furnishing the margin. While the notes usually fell due in six months,

they were renewed and normally ran several years. The ranch mortgage enabled Captain Schreiner to carry his clients through years of low prices, and his losses were light, indeed. He never foreclosed a loan, because his clients, with his advice and backing, always paid out.<sup>30</sup>

#### WOOL LOANS

A second source of financing during early days came from wool dealers. They usually advanced money on clips yet to be shorn, and required consignment or sale to them as one of the conditions of the loan. In 1885 a Boston wool dealer, Joseph H. Gray, financed the first Nebraska feeding operations of the Warren Livestock Company of Cheyenne, Wyoming, with a six months loan for \$10,000 at 8 per cent. The wool clip of the next season, 1886, was used as security.<sup>31</sup> It was possible to turn the sheep for mutton before the note was matured so the security was never called in question. Banks as well as growers took advantage of this opportunity, drawing advances from wool dealers in the early spring, on clips where the banks held mortgages.

Some western banks and eastern wool dealers established very close relations in this manner. From 1893 to 1917, A. J. Cunningham of the Casper National Bank made it a practice to go to Boston each spring to discuss the wool market prospects, as a partial guide for renewing loans that would fall due in April.<sup>32</sup> He would usually obtain advances at

<sup>28</sup> See Biographical Appendix, Charles Schreiner.

<sup>29</sup> L. A. Schreiner, President, Charles Schreiner Bank, Kerrville, Texas. Letter to author, July 14, 1941.

<sup>30</sup> *Ibid.*

<sup>31</sup> *Minute Book, Warren Livestock Company, Cheyenne, Wyoming.* Entry of December 12, 1885.

<sup>32</sup> Cunningham, Interview, March 23, 1941.

the same time on clips that the bank controlled. Finally he bought into the wool firm of Hardin, Martin, and Caverly of Boston, and acted as their buying agent in Wyoming for a number of years. In association with Caverly, who spent most of the wool-buying season in Wyoming, he made liberal advances on the clips of growers with whom he established contact, and such an advance often led to permanent dealings between the wool dealer and the grower.

On the Pacific Coast the relation was even closer. California sheepmen sheared twice a year, making six months notes very practicable. But the transportation costs to the East were high, and wool growers had their fleeces scoured before shipping to economize on the freight bill. Scouring plants existed in California at San Francisco and Los Angeles, and in Oregon at Portland and The Dalles. The freight saving from scouring was sufficient that the grower could afford an agent to attend to sorting, scouring, and marketing, and a number of western wool houses began to render these services on a commission or consignment basis.<sup>33</sup> These commission merchants advanced the scouring costs, inland freight, and other charges, and soon they were acting as financial agents for the growers in the interior (a position paralleling the so-called "selling brokers" of Australia today).

Many of these western wool firms acted as financial agents for the grower in all particulars. They advanced funds for groceries, helped obtain land leases and paid the landowner, and honored the drafts wherewith the herders were paid and additional expenses met. Frequently the local wool buyer acted as a *commissionnaire* to buy clothing, blankets, furniture, and other personal articles, advancing the money and shipping the goods out to the sheep ranches. This type of business was possible because

the annual sales of wool would usually cover all of the grower's operations, including the advances. Interest was charged from the date of each advance until settlement.

Very often the wool commission house advanced money for sheep and running expenses in the same manner that livestock finance corporations conduct their business today. However, the old wool firms were more generous in their advances, and were also much less business-like than the modern companies. There was strong competition to loan money on wool as the interest rates were high and repayment certain. Furthermore, the wool house was certain to sell the clip. Thus many of the old wool commission houses in the West served in the triple capacity of purchasing agent, sales agent, and banker.<sup>34</sup>

As on the Seaboard, the Coast banks did not like to loan money on sheep since the security consisted of chattels. The wool firms<sup>35</sup> therefore borrowed money from the banks at regular commercial rates on six-months' notes, and relied on the rate of 8 to 10 per cent received from the grower to make their profit and cover their minor risks.

The credit standing of the wool grower—including foreign sheepmen, and especially Basques—was very high. Basque industry and perseverance were great, and because they rarely went to town and spoke little English, they were seldom tempted to violate their agree-

<sup>33</sup> L. H. Tryon, San Francisco, California. Letter to W. P. Wing, April 14, 1941.

<sup>34</sup> L. H. Frost, President Frost National Bank, San Antonio, Texas. Letter to author, July 17, 1941. See Biographical Appendix.

<sup>35</sup> San Francisco firms conducting this sort of financing included E. H. Tryon, Inc., S. Koschland and Co., Christi and Wise, Thomas Denigan, George Alferitz, McNamee and Kearns, and Joseph Moody. These firms began operation in the late seventies and in a few cases are still in business.

ments. Many of these men had credits at the end of the year, leaving their money with the commission merchant who financed them. L. H. Tryon writes:

Shortly after my father's death, we had one or two accounts who had left their money with us, although we were never bankers. At one time, I believe, I sent some \$40,000 to \$50,000 to a Basque sheepman who had gone back to the Pyrenees. In another case, which was rather recent, we had some \$25,000 belonging to a sheepman who died intestate, and it was some little time before the court could determine who rightfully was entitled to the money during the long probate of the estate.<sup>36</sup>

The extreme case of surplus credits developed with the Ardizzi-Olcese Company of Bakersfield, which at one time was reputed to be holding credits of nearly a million dollars for its customers. The amount was so great that the Federal Government required the Company to take out a bank charter for its own protection. For a period of nearly sixty years, this firm—with its predecessors—financed tremendous numbers of California, Nevada, and Arizona sheepmen, providing money with which to buy flocks, obtain leases, and operate their camps with clothing, food and supplies.<sup>37</sup> In addition, approximately 175,000 acres of grazing land were leased by the firm and sublet to sheepmen yearly, while Louis Olcese arranged for the sale of their wool, wethers, and lambs. These sheepmen had no debts except with the Ardizzi-Olcese Company,<sup>38</sup> and any surplus money was held for their credit until needed.

Selection of the firm's customers was so careful that it never asked, nor received, a mortgage from any sheepman. Frequently a herder who had accumulated one to two thousand dollars from his wages would be set up in business by the Company—the latter advancing four thousand dollars or more, as well as necessary credit for supplies, grazing, and rentals.

The debt to the Company from sheep

customers averaged around \$150,000 annually, and in 1919–20 it reached a high point of more than three-quarters of a million. When Louis Olcese died in 1929, accounts receivable and notes renewable from sheepmen amounted to more than \$150,000. Practically every debt was collected in liquidating the estate, despite the great depression that set in. The amount uncollected was less than 1 per cent, and no use was made of court action or collection agency. The Ardizzi-Olcese Company was more than a financing institution—it was as integral a factor in developing California as the gold mines, citrus groves, and the moving picture industry.

In Deer Lodge, Montana, a firm that had a similar reputation in the sheep financing business, was Larabie Brothers.<sup>39</sup>

#### MODERN PARTIDO SYSTEMS

Following the American occupation of the Southwest, a new development appeared in the *partido* system. Mercantile houses were established by immigrant easterners in Trinidad, Colorado; in Taos, Las Vegas, Santa Fe, Albuquerque, and Socorro, New Mexico; and still later in Holbrook, Flagstaff, and Prescott, Arizona.

One of the first undertakings was to extend credit to sheep operators for their season's supplies. After experience with the rather haphazard business methods of some Spanish and Mexican flockmasters, these houses found them-

<sup>36</sup> Tryon, Letter, April 14, 1941.

<sup>37</sup> Frank Noriega, Bakersfield, California. Letter to author, April 12, 1941, quotes information furnished by Leo G. Pauly, former Secretary-Treasurer of the Ardizzi-Olcese Company and Harry V. Miller, former office manager and bookkeeper of the Company.

<sup>38</sup> See Biographical Appendix, The Ardizzi-Olcese Company.

<sup>39</sup> See Biographical Appendix, Larabie Brothers.

selves partial or complete owners of flocks. Few such operators were equipped to care for the animals and had to find experienced Mexicans to handle them.

Out of this situation, a variant of the *partido* system developed, whereby the operators of the stores put out the sheep on shares, furnished the supplies, and advanced the taxes, buck costs, shearing costs, marketing fees, etc. The cash advanced for supplies was repaid by the *partidario* out of his half of the income from wool and wethers, while half of the taxes and costs of bucks, shearing, transportation, and marketing were also assumed by him. The owner received two pounds per head of wool and half the wether lambs, the *partidario* receiving the remainder. After five years the mercantile operator received sheep of the same age, class, and condition as he had originally supplied, increased one-fourth to one-third in number.

Prominent firms operating in this manner included the various Bond associates in New Mexico and Colorado, the Hubbells, the Ilfeld-Moulton Company, Louis B. Ilfeld and Company, the Gross-Kelly Company (all of New Mexico), and the various Babbitt partnerships in Arizona.

Farther north the mercantile firms equipped flock owners on a straight financing basis. In Wyoming, the Cosgriff Brothers established a series of commissaries in connection with the supply of their sheep camps, and expanded them into a system of primitive chain stores that served the small communities. From these stores they supplied sheepmen whom they financed from their chain banks. In each case the transaction was purely financial, and the firm loaned money on a very conservative basis. Many operators of Wyoming, Colorado, Utah, and Idaho, who became quite substantial later, were financed by them.<sup>40</sup>

#### FLOCK PARTNERSHIPS

Numerous flocks in Wyoming and Montana developed from partnerships with established sheepmen. In Wyoming, Converse and Warren of Cheyenne were pioneers at putting sheep out on shares. On August 1, 1873, the firm drew up articles of agreement with Hay and Thomas<sup>41</sup> of Cheyenne, by which they furnished "one thousand (more or less) grade Merino sheep (ewes) and a sufficient number of rams, free of any expense to said Hay and Thomas." Hay and Thomas agreed to receive the sheep at Cheyenne and place them on their "ranche" on Lone Tree Creek some nine miles south of Cheyenne, and provide for the keeping of said sheep and their increase for the term of three years (unless the agreement is changed by mutual consent) without any expense to said Converse and Warren, upon the following conditions:

*First:* The said "Hay and Thomas," party of the second part, herein agree to herd and care for said sheep and their increase, providing sufficient shelter, hay, grain, salt, etc., for their support; also agree to have them sheared in proper time and manner and have the wool properly sacked and delivered into the City of Cheyenne.

*Second:* All losses from the original number of sheep are to be made good at the end of each year from the undivided increase for the same year. The sex to correspond with those lost.

*Third:* The net proceeds of all wool sold, and all sheep sold from the undivided increase are to be equally divided between the two partners, one half to "Converse and Warren" and one half to "Hay and Thomas."

*Fourth:* At the expiration of the three years from the date of this agreement or at such time as this contract is annulled, the said "Hay and Thomas" party of the second part shall deliver to the said "Converse and Warren" party of the first part, the original number of the remaining undivided increase of the whole flock.

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<sup>40</sup>See Biographical Appendix, Thomas and John Cosgriff.

<sup>41</sup>Henry G. Hay was later a Cheyenne banker and still later treasurer of one of the big steel companies.

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Later contracts added the proviso in the third paragraph that no sales were to be made without mutual consent and agreement.<sup>42</sup> In a contract with W. B. Miner of Fort Collins, Colorado, the latter agreed to furnish "all the rams or bucks necessary to 'serve' all the ewes," such rams to be "full-blood Merinos and to number at least one buck or ram to every fifty ewes," without any expense to Francis E. Warren. Other expenses, such as taxes, tags for marking, sheep dip, wool sacks, twine, cartage on wool, and "all necessary and contingent expenses of every kind" were to be paid by Warren.

On September 15, 1876, a contract<sup>43</sup> with Hamma and Murphy included new details. In the first section Hamma and Murphy were required to "skin or pull the wool from sheep that die, and return the tin ear marks to Converse and Warren, and to have said sheep sheared in proper time and manner, and have the wool properly sacked and delivered in the city of Cheyenne, Wyoming Territory." Converse and Warren paid the taxes and Hamma and Murphy "all other expenses of every character and qualification." A final provision allowed Hamma and Murphy to extend the two years of the original contract to five years on written notice to Converse and Warren and permitted them to extend their lease on the "ranche."

Throughout the eighties and nineties two types of partnerships, or "share contracts" as they were called, were in general use in Wyoming.<sup>44</sup> The "Hurt contract," so called because it was originated by Joel J. Hurt of Rawlins and Casper, gave a partner half of the wool and half of the increase at the expiration of three years, returning to the owner the original number of sheep and the other half of the increase. The owner furnished the rams, paid the taxes, and adjusted for unusual natural losses.

The "Woodruff contract" was more popular. Under it the owner furnished the rams and paid the taxes, but he got half of the wool and received all of the wether lambs each fall. At the end of three years, the ewe band was divided equally according to age. If the contract was not completed the share operator received at the end of the first year one-sixth of the ewe band, according to age, and half of the season's wool. If the settlement was made at the end of the second year, the share operator received one-third of the ewe band, according to age, and one-half of the second season's wool.

Under each contract the share operator moved his sheep to a new range. This clause soon resulted in the complete occupation of the West and terminated the practice. Since 1900 these contracts have been used infrequently and today are virtually impossible. At the time the system provided great assistance and encouragement to young men of integrity.

#### LOANS FROM COMMISSION MEN

While livestock commission salesmen were endorsing and discounting cattle paper in the late seventies, they were slower in financing flocks. In part this was due to the hostility of the cattlemen, but in larger part it was due to unfamiliarity with sheep. The first sheep money from commission firms was apparently advanced on feeding operations, as the average commission firm dealt in animals and had no chance to

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<sup>42</sup> Share contract April 1, 1875, between Francis E. Warren of Cheyenne, Wyoming, and W. B. Miner of Park Station, Colorado—preserved in the files of the Warren Livestock Company, Cheyenne, Wyoming.

<sup>43</sup> Share contract dated September 15, 1876, between Converse and Warren and Hamma and Murphy (both of Cheyenne) in the files of the Warren Livestock Company, Cheyenne, Wyoming.

<sup>44</sup> Cooper, "Early Sheep History in Wyoming," 9.

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handle wool sales. The most important sales firms in lamb feeding loans over the years were Adams and Burke, W. R. Smith and Sons, R. Brackenbury, Rosenbaum Brothers and Company, and Clay, Robinson, and Company (later John Clay and Company).<sup>45</sup>

This latter firm<sup>46</sup> made regular feeder loans in the Fort Collins-Greeley lamb-feeding district when it established its Denver office in 1895. Numbers of feeders in this region were Clay-Robinson customers, and the firm never had to foreclose a mortgage nor lose a dollar on any loan through dishonesty. In a few cases it was necessary to reduce the loan temporarily due to market or feed conditions, by refusing to buy replacements when the sheep were sold.

The few losses sustained were usually due to incompetence on the part of the borrower,<sup>47</sup> who tried to finish too many lambs for his available feed. Such men would run out of hay, grain, or beet pulp before the lambs were ready to market. Since they could not be marketed profitably in that condition, Clay-Robinson would have to buy more feed for them, often at prices that wiped out all chance of profit. The only years in which this firm experienced losses in feedlot loans were 1921 and 1932. In these two years the market broke badly—several cents—after the lambs were in the feedlot. Yet the company continued to finance the men who sustained the losses and with two or three exceptions, all paid out.

About 1900 the firm began advancing money to feeders in the newer districts in the Northwest. In 1903 a loan was made to George W. Burt of Terry, Montana, on a band of wethers and lambs which were taken grass-fat off the ranch, finished at the New Brighton yard near St. Paul, and sold there. In this loan the animals covered by the mortgage—thirty thousand dollars on 14,700 sheep

—included 5,000 lambs, 2,700 yearling wethers, 5,000 two-year-old wethers, and 2,000 ewes.

In 1892 Clay, Robinson, and Company purchased the Butte County Bank in Belle Fourche, South Dakota, and by 1903, one-third of its livestock loans were on sheep fed in that irrigated district. As the market demand swung more and more to lambs and the old time wether feeding discontinued, loans were extended to breeding flocks. In 1910, the company loaned \$150,000 on breeding ewes in the vicinity of Heber City, Utah, the loan being paid by fat lambs sold off their mothers' milk early that fall.

Loans of this type increased rapidly during the next decade, and did not diminish in number and value until the disastrous markets of 1931. Several commission firms failed to recover from this blow and the amount of sheep paper handled has declined to about half the volume of the early twenties.

#### PACKER LOAN COMPANIES

During the early years of the present century, various western and southwestern cities developed livestock markets under the ownership of large

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<sup>45</sup> Driscoll, Letter, July 30, 1941.

<sup>46</sup> Clay, Robinson, and Company originated in a partnership between John Clay of Chicago and William H. Forrest in 1884. Clay and Forrest had acted as agents for the *Y L* Cattle Company in Indian Territory on the North Canadian River, previous to that date. In 1886 the partnership was expanded to Clay, Robinson, and Company, with John Clay, Charles H. Robinson, Sr., and William H. Forrest. The partnership started discounting livestock paper with the First National Bank of Chicago in 1888. In addition to handling livestock paper at such markets as Chicago, East St. Louis, Kansas City, St. Joseph, Omaha, Sioux City, St. Paul, Denver and Fort Worth, they acquired banks at Cheyenne, Wyoming; Billings, Montana; Miles City, Montana; Belle Fourche, South Dakota; and other points.

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<sup>47</sup> Connor, Interview, April 9, 1941.

packers who were establishing plants at these points. Each of these markets was equipped with an exchange building, bank, market newspaper, telegraphic news service, and all of the other appurtenances characteristic of a central stock-yard.

Soon demands were placed on these banks to handle livestock paper. At such points as Kansas City, St. Joseph, Omaha, Sioux City, St. Paul, Wichita, Denver, Oklahoma City, Fort Worth, El Paso, San Francisco, Portland, and Spokane, livestock loan companies backed by the packer families<sup>48</sup> (but operated separately from both their banks and packing houses) were established. Money advanced was rediscounted at eastern banks and guaranteed by the new loan companies. Interest rates were the current commercial ones, plus 2 to 2½ per cent (in extreme cases 1½ to 3 per cent), as it cost 1 to 1½ per cent to handle the loans.<sup>49</sup>

Most of the loans were placed on cattle,<sup>50</sup> until the demand for increased meat production during the first World War stimulated loans for lamb fattening. Some of these were direct feeder loans and some were advanced for the precontracting of feeder lambs during 1918–21. The packers at that date felt that livestock loans were more than a banking proposition and believed them necessary for sustaining and developing the industry in the war period.

The concept that food would win the first World War was accepted without question by the Armour, Cudahy, Morris, and Swift families. They loaned large funds for increased livestock production all over the West. While they could expect financial gain through processing increased production in their packing houses, they also faced large losses if the territory normally tributary to their plants became depleted of livestock.

Their motive in financing these loan companies was defensive—to insure their operations.

However, both sheep and cattle advanced rapidly to higher and still higher levels after 1917, and the prospects of continued price expansion attracted people to lamb fattening and wool growing who had neither experience nor "sheep sense." Some of them were professional men, some were livestock market operators with trading, rather than production, backgrounds, and some were purely speculators. The size of the loans varied from a few hundred to as much as a million dollars. The loan companies also found many customers among marginal livestock operators, whose production seemed necessary to supply the war effort and whose livestock background assured some measure of success in the face of prospective meat shortage.

Cole points out<sup>51</sup> that the business reputation of an applicant, his honesty, and character were the chief factors in making him eligible for a loan, but that many persons of known ability and possessed of sufficient collateral were disapproved if they were known to take advantage of technicalities in meeting their obligations. Unfortunately, the pressure for production brought out numbers of the latter, and perhaps half of the packers' clients were not Class I customers from a conservative viewpoint. Worst of all, methods of inspecting the

<sup>48</sup> S. M. Jasper, Treasurer, Libby McNeill and Libby, Chicago, Illinois, listed the so-called "packer livestock loan companies" that functioned during World War I. See General Appendix C.

<sup>49</sup> Charles S. Cole, "Cattle Loans and Their Value to Investors," *Yearbook, United States Department of Agriculture* (1918), 7.

<sup>50</sup> Jasper, Letter, May 29, 1941.

<sup>51</sup> Cole, "Cattle Loans and Their Value to Investors," 7.

livestock were not strict enough to keep adequate check on the collateral—in fact the laxity tended to encourage dishonesty.<sup>52</sup>

While at present the debacle of 1921 seems obvious, it was less evident in advance, and for at least two years the sheep business prospered in spite of the inexperience and occasional lapses of business ethics on the part of borrowers. When the price declines finally set in, however, two scrambles developed—one by the borrower to market his lambs, and another by the loan company, trying to salvage as much money as possible. In many cases the packer-owned houses could have closed out their customers and realized a greater salvage, but this would have forced more "distress" livestock on the market and rendered many normally sound operators insolvent—operators who were temporarily on the ragged edge because of the postwar break.

In such a situation, considerable friction developed between the loaner and the borrower, and cases of gross dishonesty among those holding loans added to the general confusion. Occasionally, more time extended borrowers would have been helpful, but in most cases it would only have prolonged the period of insolvency. At any rate, the packers felt that the essential step was to save as much of the industry as possible, even though they stood little chance of getting their money back. They were unquestionably more liberal than any of the independent companies. When the loan companies were finally dissolved, the members of the four packing families, who believed themselves patriotic in financing these loan companies, were losers to the extent of thirty-five to thirty-eight million dollars.<sup>53</sup> The total loss to loan companies as a whole has been estimated at fifty million dollars.<sup>54</sup>

#### WAR FINANCE CORPORATION

When the livestock loan companies left the scene in the early twenties, the smaller operators were taken over by the local banks, but the larger operators were left adrift. More agricultural products than sheep were affected, however, and the collapse of so many financing agencies in 1920–21 created a real emergency. During the war, short-term farm credits had been handled through the War Finance Corporation founded in 1918. Its operations had been suspended in 1920, but the demands from agriculture for financial relief led to its re-establishment under the direction of Eugene Mayer of California on August 24, 1921. It was instructed to make loans to banks or other agencies financing agriculture, and also to agricultural cooperatives.<sup>55</sup>

Thirty-six branch offices were established throughout the country, but no direct loans were made to livestock operators. Instead the corporation carried sound, though nonliquid, paper of stockmen and farmers—largely in the western states—thereby supplying the cash to endorsing agencies. Nearly three hundred million dollars were loaned on all classes of agriculture, and practically every loan was eventually liquidated.

#### INTERMEDIATE CREDIT BANKS

Since the War Finance Corporation was planned only on a temporary basis and since the serious agricultural depression continued from 1921 through 1923,

<sup>52</sup> Driscoll, Letter, July 30, 1941.

<sup>53</sup> F. Edson White, President, Armour and Company, Chicago, Illinois. Interview with author, December 6, 1926.

<sup>54</sup> A. H. Caine, Secretary-Treasurer, Idaho Livestock Production Association, Boise, Idaho. Letter to author, May 23, 1941.

<sup>55</sup> A. T. Esgate, Deputy Production Credit Commissioner, Farm Credit Administration, Washington, D. C. Letter to author, May 23, 1941. Most of the details regarding government financial agencies are summarized from this letter.

demand arose for permanent short- and intermediate-term farm credit agencies. The Agricultural Credits Act of 1923 provided for twelve intermediate credit banks to discount agricultural loans for financing institutions generally. More liberal discount privileges for agricultural and cooperative paper were also provided.

These banks made no loans directly to livestock men, so their usefulness depended on the number, financial strength, and activity of the agencies which discounted loans with them—or conversely on the volume of acceptable paper offered for rediscount. Several types of agencies used intermediate credit banks, such as commercial banks, agricultural credit corporations, livestock loan companies, and farm cooperatives. More than four hundred agricultural credit and livestock loan organizations were established, some as subsidiaries of banks and others as subsidiaries of cooperatives or marketing agencies.

#### AGRICULTURAL CREDIT CORPORATIONS

Although the foregoing agencies took care of the larger operators, or the established sheep farmers in the Midwest, it was almost impossible in 1922–27 to finance beginners. The situation was so severe in the Northwest that business leaders of that region—bankers, railroad executives, newspaper publishers, insurance men, manufacturers of farm equipment, packers, and heads of various other businesses related to agriculture—formed the Agricultural Credit Corporation with headquarters in Minneapolis.

A ten million dollar capital was subscribed for the purchase of ten-year income bonds of the corporation. Only 60 per cent of the amount subscribed was called, there being 434 subscribers whose amounts varied from a few hundred dollars to several hundred thousand. The capital was drawn from all

over the country—37.4 per cent coming from New York; 19.8 per cent from Chicago; 9.6 per cent from Minneapolis, St. Paul, and Duluth; 7 per cent from Detroit; 6.1 per cent from Cleveland; 6 per cent from Pittsburgh; 5.5 per cent from Philadelphia; 4.5 per cent from Hartford, Connecticut; 2.6 per cent from Boston; and 1.5 per cent from various other sources.<sup>56</sup>

The first six months of operation were devoted to assisting banks. But the good crops of 1924 helped place the latter on their feet, and the corporation began to lend strictly to farmers for the purchase of livestock, principally sheep and dairy cattle. The intention was to help diversify farm operations, develop a new cash income, and produce a larger part of the animal foods consumed on the farms. In each community a local committee of three to five representative men was selected, one to serve as secretary, and all without compensation. The committees usually consisted of a banker, an outstanding farmer or stockman, a merchant, and the county agricultural agent. The corporation financed the purchase of animals of better quality. The majority of the sheep were shipped from Montana and the sheep-raising districts of South Dakota.

The notes ran for three years and the borrowing farmers paid 20 per cent cash, or provided additional security. Thirty per cent of the balance of the purchase price had to be paid the first year, 30 per cent the second year, and 40 per cent the third year. The interest rate was 6 per cent and a mortgage was taken on the sheep, their increase, and the wool. All of the sheep furnished the farmers were yearlings.

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<sup>56</sup> S. W. Wilkins, Vice President, First National Bank, Austin, Minnesota, and former Vice President Agricultural Credit Corporation, Minneapolis, Minnesota. Letter to author, July 30, 1941. Also, reports Agricultural Credit Corporation, Minneapolis, Minnesota, 1924–26 and 1931.

The Corporation closed business in 1931, when the government started financing agriculture in a more substantial way. Eight thousand farmers were furnished 448,712 sheep in the seven years, and the total amount loaned was \$4,155,408.72. At the end of 1931, the record was as shown in the table at the bottom of this page.

Final settlement of practically every debt was accomplished. During the decade in which the Corporation operated, the great lamb-feeding industry of the Red River Valley in North Dakota and Minnesota developed, while the sheep population in North Dakota increased nearly a half million head.

Another company equally as important was the Montana Livestock Finance Company, organized in 1921 in Helena through the cooperative effort of Montana bankers who subscribed \$250,000. This corporation with its successor, the Montana Livestock Loan Company, operated for fifteen years, handled between forty and fifty million dollars in loans, and sustained only negligible losses.

Up to this time it had never been the practice to make accurate and comprehensive inspection of livestock loans, but this Montana company not only made an accurate tally and inspection of the livestock, but also analyzed each operation to determine its soundness and efficiency. Since only experienced stockmen were employed as inspectors, sheepmen found the advice the inspectors

could give valuable. Other companies equally efficient operated elsewhere in the West, but they finally liquidated their operations when the government-owned lending agencies and the production credit associations, with subsidiaries, were established.

#### REGIONAL AGRICULTURAL CREDIT CORPORATIONS

The price crisis of 1929 restricted credit sources of all kinds. Values of livestock fell precipitately and liquidation was drastic. Many livestock men were faced with impossible demands for payment of obligations. In February, 1932, the Reconstruction Finance Corporation was established with permission to make loans to banks, railroads, and industry. It also established in the same year twelve regional agricultural credit corporations, one in each land bank district, with twenty-two additional branch offices. These corporations made sound short-term loans for livestock and farming operations.

The purpose of the Regional Corporations was similar to the War Finance Corporation, except that the Regionals were permitted to make loans directly to farmers and stockmen, while the War Finance Corporation had to make the loans to institutions financing the growers. The net result was often the same, since banks with difficultly-liquidated livestock paper urged their borrowers to transfer their loans to the "Regionals,"

RECORD OF THE AGRICULTURAL CREDIT CORPORATION

State	Number Farmers	Number Sheep	Amount Loaned	Amount Repaid by Dec. 31, 1931	Percentage Repaid
North Dakota.....	4,975	276,017	\$2,668,346.42	\$2,027,204.75	76.0
Minnesota.....	1,688	68,896	628,887.44	450,421.30	71.6
South Dakota.....	842	64,065	521,704.07	378,583.47	72.6
Montana.....	349	34,615	288,605.46	224,057.50	77.6
Michigan.....	83	2,570	25,665.77	12,386.72	48.3
Wisconsin.....	62	2,549	22,199.56	10,956.95	49.4

while the banks received cash to meet demands on them.

Unfortunately, the Regional Agricultural Credit Corporations were provided only as emergency agencies. From 1932 to the end of 1940, cash advances aggregating approximately 330 million dollars were made, of which \$5,855,092 was still outstanding when the Regional Agricultural Credit Corporation shut down.

Experience with the "R.A.C.C." proved that agricultural financing had characteristics that required specialized short-term credits for stockmen and farmers. It was furthermore demonstrated that government money should not be loaned, but backing should be provided whereby funds for loaning could be obtained from the investing public. Also, the loans should be decentralized and made through local offices instead of a central office in Washington or district offices.

#### PRODUCTION CREDIT CORPORATIONS

The Farm Credit Act of 1933 directed the governor of the Farm Credit Administration to organize twelve production credit corporations to be established in each farm credit district, and to charter production credit associations formed from local cooperative credit organizations of farmers or stockmen. The corporations were assigned three functions: to organize the associations, to capitalize them in part, and to supervise the associations in their respective districts. The corporations made no loans, as the direct lending function was assigned to the association.

In 1944, 514 of these associations were serving every agricultural county in the United States and one in Puerto Rico. Short-time loans were available for any general agricultural purpose, provided the applicants qualified for the safety of the loans and their complete repayment.

Loanable funds were obtained by rediscounting with the Federal Intermediate Credit Banks of the district or by borrowing from the latter. The Federal Intermediate Credit Banks obtained their funds from the sale of debentures to the investing public, the debentures being secured in part by the association's loan paper. The interest rate charged by the associations was 3 per cent above the current discount rate of the intermediate credit bank, and that rate was determined by the interest rate which the credit bank had to pay on its debentures. In February, 1939, the discount rate was set at 1½ per cent and the rate of interest on association loans became 4½ per cent. At the end of 1944, the outstanding loans totaled \$191,684,446, to 128,693 borrowing members.

The chief difficulty with the government's financing institutions has been that they could not serve stockmen who did not subscribe to the cooperative principles. Furthermore, the necessary red tape in handling loans was greater. Hence most of the larger stockmen of the West have continued their financing through private institutions. In some states, however, such as Idaho, Texas, and California, the production credit associations have thrived, and there is a gradual increase in the business done by them all over the West. The development of these government facilities has lightened the rediscount demands on the normal channels of financing sufficiently that stockmen who prefer to finance through private banks are able to do so without difficulty.

One of the chief causes of failure among the early livestock loan companies was lack of reserves. When the Farm Credit Act was passed, it was specified that a production credit association must maintain at least one dollar of liquid capital for each five dollars loaned. This capital is invested in government bonds

pledged to the Intermediate Credit Bank as additional security for the producers' notes. In turn, the Credit Bank issues short-term debentures against these producers' notes.

#### PROFITS IN SHEEP

The records of the financing agencies indicate that there must be a sound operating profit inherent in the sheep industry. Wool prices have varied widely in any given period of years during the last century, dependent on the rate of operation of the woolen mills. This in turn has been related to fashion changes, length of wear of clothing, and the rate of army and navy purchases (always big wool users in time of war or during defense preparations), but there does not seem superficially to be the regular cyclical movement that occurs in so many agricultural and industrial products.

During the years when prices of wool were low, a better situation has usually prevailed for lamb and mutton, so that there was a regular income from sheep raising. Only during the panic years of the last century and the critical postwar depressions have both mutton and wool prices suffered simultaneously.

When flocks were established in the intermountain country after the Civil War, prospects for sheep raising appeared excellent, and following the "panic" of 1873 the business thrrove. The decade 1877-87 was the boom period of the western range industry. Under sound, honest management, investments doubled and quadrupled through earnings (after all charges were paid) in both cattle and sheep, though sheep were the more profitable of the two.<sup>57</sup>

Brisbin wrote in 1880: "Sheep-farming is still more profitable (than cattle and horse raising) and an investment of five thousand dollars can be made to pay 35 per cent the first year, 47 per cent the second year, and 60 per cent the third

year."<sup>58</sup> He also quoted H. B. Rumsey as earning 46½ per cent during the second year of his investment on the Laramie Plains, and M. E. Post of Cheyenne as earning 60 per cent.<sup>59</sup> General Brisbin showed comparative costs of keeping three thousand head of sheep in the East and on the plains, presenting annual costs of \$6,750 and \$1,200, respectively.<sup>60</sup> The bonanza character of sheep raising under western conditions could not fail to arouse the interest of the eastern grower.

The industry moved forward very satisfactorily until the Cleveland administration took the tariff off wool in the early nineties. This blow was severe, especially in Idaho, Wyoming, and Montana, but the prosperity of the next quarter-century again made the business attractive.

Illustrative of what happened to some of the successful sheep outfits in normal times is the following statement from Brackenbury:

Shortly after 1900, I was made Secretary-Treasurer, and virtual business head, of the Mesa de Mayo Land and Livestock Company. When we closed out, this was the largest sheep outfit in Colorado. Originally Denver bankers owned this property which was south and east of Trinidad, Colorado. . . . The range was what might be called a springs and water-hole country with no running streams. Gradually the original owners had gotten together claims aggregating about twenty thousand acres covering the water and so controlling a range for sheep of five hundred square miles, roughly speaking. I was approached to purchase the layout, the price being a hundred thousand dollars including an estimate of more than eighteen thousand ewes.

A Wyoming neighbor, Fred Hee, and myself looked it over and I remember Fred telling the banker, "Yes! you are a sheep owner, but you are certainly *not* a sheep man!" The banker

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<sup>57</sup> Brisbin, *The Beef Bonanza*, 35-70 and 93-139.

<sup>58</sup> *Ibid.*, 58.

<sup>59</sup> *Ibid.*, 113 and 122. The General reverses Mr. Post's initials, wherever he refers to him.

<sup>60</sup> *Ibid.*, 123.

would not shade the price a nickel, but Otto Gramm of Laramie, Jack Davis of Fort Steele, and other Wyoming friends, helped gather forty-five thousand dollars as a down payment. This was the end of March and the sheep were more or less scabby and in rather thin flesh. . . . Without corralling any of the bands, I ran them by and counted them with sufficient accuracy to report that there were eighteen thousand ewes. Hardly had the deal been made, however, when a blizzard disposed of two or three thousand.

When fall came, we had cleaned the sheep of scab and put them in good condition, and we had reduced the loan ten thousand dollars. We begged the bankers to allow us five thousand dollars in cash so that we could carry over five thousand ewe lambs to build up our own flocks. They refused and we had to sell these picked ewe lambs for around \$2 per head to feeders. Whether we were right or wrong, Fred and I thought they were trying to freeze us out, so we decided we must get rid of the incubus and the dominating bankers. We increased our capital stock and I made a trip to England, where in about four weeks I sold stock to the amount of about sixty thousand dollars.

On October 2, the following fall, when our notes were due, I thought the bankers were going to put us on the spot. It was perhaps with a cheap sense of triumph, when the notes were produced and the bankers asked what I was going to do about them, that I was able to reply, "Why, pay the 'damned' thing off, of course!" I enjoyed immensely the apparent shock of surprise on their faces, for we had let out no hint of liquidation.

Once out of debt we developed the outfit up to twenty-five thousand ewes, ten thousand wethers, and two to three thousand cattle. When Congress passed the 640-acre homestead law we saw "the handwriting on the wall," with the advent of dry farmers. We sold out and our ranges became part of the "dust bowl" because of this foolish law. You will be glad to know, though, that the British investors, after receiving 8 per cent in dividends annually, finally got around forty pounds per share for which they had paid only fifteen pounds.<sup>a1</sup>

Numerous stories of the strength of recovery of the industry from the post-war depression of 1920-21 could be told, when flocks were in capable hands, but the following situation was typical:

My nephew who had been left in charge of my . . . business . . . was not supposed to make range loans, but without consulting me loaned Senator Robert Stanfield . . . seventy five thousand dollars on a string of young ewes in Oregon. The loan had been reduced to forty-eight thousand dollars when the deflation of 1921 came

along. . . . Robert was then the biggest operator in sheep in the state of Oregon. . . . When the crash came I was faced with this problem—how to get, including interest, one hundred fifty thousand dollars out of security in sheep to the current value of twenty-five thousand dollars or a little more.

I went to Oregon, spent a week with Stanfield, and came back to my bank—the Denver National. "What about that Stanfield loan?" Mr. Morrison asked me. "We need not lose a dollar," I replied, "providing you will increase the loan from fifty thousand dollars to one hundred twenty-five thousand dollars. Lend us seventy-five thousand more!" After being told I was a candidate for a lunatic asylum, I got a phone call at the Yards the next day to go ahead. We did—Bob traded off the young ewes for a good value in aged ewes and lambs. We bought an additional number, and put some ten thousand ewes and their lambs in the Colorado mountains. We marketed them in Denver that fall and cleaned up our loan, and commissions, and had several thousand dollars left.<sup>a2</sup>

While the foregoing are "success stories" for large outfits, results were about as satisfactory with farm flocks. Early in 1927 the Agricultural Credit Corporation of Minneapolis published reports from northwest farmers to whom sheep loans had been made two or three years earlier, most of them grain farmers before the loan was made. Their reports were in terms of additional income as against expenditure, payment for necessary improvements on the farm, restoration of credit at stores and banks, financial rescue of farm titles about to be lost, and actual salvation of the farm family. Many reported doubling and trebling their investment. One of the best summarized reports follows:

My brother and myself . . . October 7, 1923 . . . purchased one hundred head of yearling ewes from the Corporation. The spring of 1925 our sheep sheared eleven hundred pounds of wool which was sold at forty cents a pound. The same fall we sold 128 lambs at \$8.30 per head. We made the first payment (on the loan) and bought 78 . . . yearling ewes with the balance, leaving us one hundred seventy six head the fall of 1925.

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<sup>a1</sup> Brackenbury, Letter, March 19, 1941.

<sup>a2</sup> *Ibid.*

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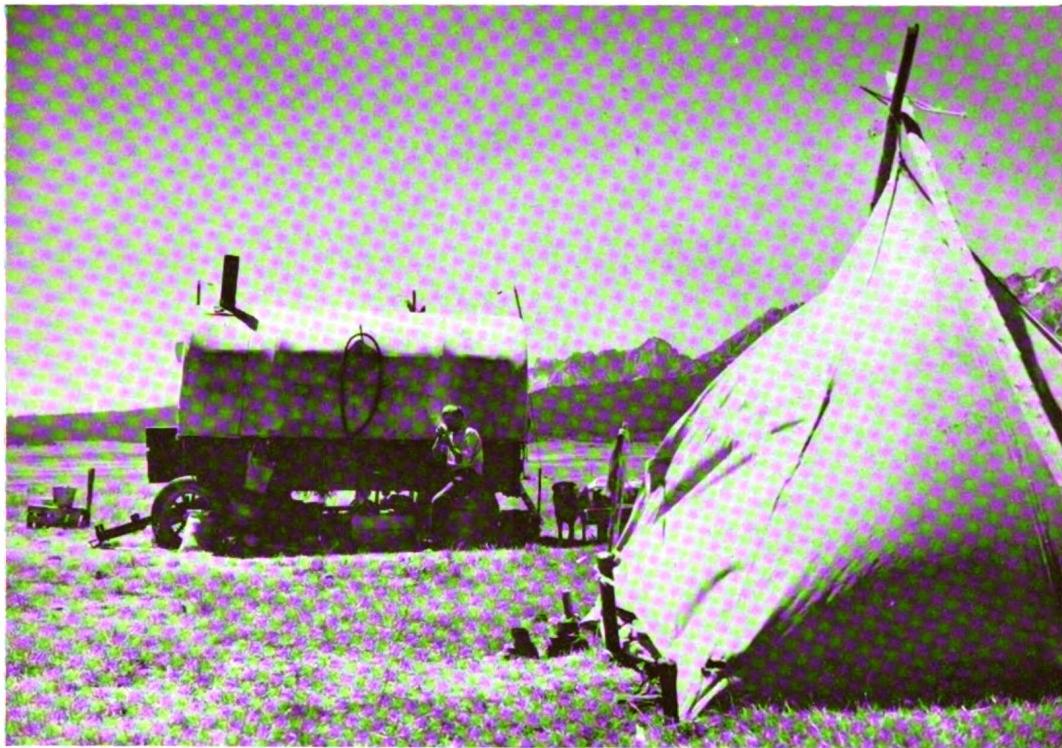


FIG. 105—Sheepherder's camp on private land in Stanley Basin, Idaho. Sawtooth Mountains and Sawtooth National Forest are in the background. (United States Forest Service.)



FIG. 106—Band coming into bedground. (United States Forest Service.)



FIG. 107—Counting sheep into the Wasatch National Forest. (United States Forest Service.)



FIG. 108a—Albert F. Potter, first director of grazing in National Forests (p. 503). (United States Forest Service.)



FIG. 108b—E. S. Gosney, Arizona wool grower prominent in early grazing disputes on National Forests (p. 503).

In 1926 our sheep . . . sheared . . . 1,757 pounds of wool which we sold at 34 cents per pound. The fall of 1926 we had 203 lambs and sold one hundred head of them for \$960. We made our second payment this fall, and have 275 sheep left with an estimated value of three thousand dollars. . . . This fall we had a total failure of crop but after we had sold our wool and lambs and paid the Corporation we had about nine hundred dollars left. With that money it enabled us to hold over cattle and other stock not ready for market.<sup>63</sup>

The foregoing shows the possibilities of sheep growing when handled properly. Not all men are so successful. An analysis by the Farm Credit Administration of confidential reports on the operation of sheep ranches in the Omaha, Wichita, Berkeley, and Spokane Farm Credit districts, for three- and four-year periods, showed that of 347 borrowers from financing institutions discounting with the Federal Intermediate Credit Banks, 238 sheep raisers made consistent progress toward reducing their indebtedness and 109 did not.

Of those who were operating at a loss, fewer than one-fifth were reducing their assets by the amount of their losses. Of the remainder, two-thirds were increasing their indebtedness by the amount of their losses, and one-third were doing a little of both. The two latter classes were naturally speculating on the chance that market values of their flocks might increase to cover the indebtedness. Many years' operation at a loss can be tolerated if the size and quality of the flock is improving.<sup>64</sup>

The foregoing brings out the chief cause of failure in the sheep industry beyond inefficient management—namely, the tendency to increase indebtedness

in the expectation of speculative market rises in price. In fact, there seem to be only four causes of loss in the industry: (1) natural causes—storms, drouths, disease, and predators; (2) lack of knowledge of practical sheep management; (3) speculation; and (4) dishonesty.

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The financing of the sheep industry evolved from a condition of superconservatism in the East, which required mortgages on real estate to establish flocks, through a situation in the West where the word and character of the borrower were the only security required, to the modern securing of sheep loans on chattel mortgages. Similarly, the source of loans has changed—from merchants and local banks, through wool dealers, livestock commission salesmen, packers, and independent loan companies, to privately-owned, but government-backed, local loan associations and discounting banks. The majority of the larger operators still do business with privately-owned banks. Hence the sheepman of today has many sources of financing, in sharp contrast with the limited resources available previous to the first World War.

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<sup>63</sup> Report of Accomplishments, 1924–26, Agricultural Credit Corporation, Minneapolis, Minnesota, 11, quotes Ole Tuntland, Shields, Grant County, North Dakota.

<sup>64</sup> *Production, Income and Expense of Sheep Ranches in the Omaha, Wichita, and Berkeley Farm Credit Districts, 1935, 1936, and 1937*, Farm Credit Administration (1939). Also *Sheep Ranches, Spokane Farm Credit District, Production, Income, and Expense, 1935, 1936, 1937, 1938*.

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*Those were the days when sunlit slopes seemed drab!  
Through endless hours I clambered o'er the steep,  
To find my flock afame with cursed scab!  
Those were the days I trembled for my sheep!*

—Homer Addison, "The Ailing Flock," 1851

♦ 20 ♦

## The Disease Problem

DIFFERING from other domestic animals, sheep harbor few diseases communicable to man. The hilly and mountainous habitats characteristic of their wild state were favorable only to insect-borne parasites, while the ordinary infections prevailed in the lowlands. From the day of domestication, foot rot, liver rot, and stomach worms plagued flockmasters who ran their bands on marshy grounds. And over this long period the two most widely distributed pests have been ticks and scab. Limitations on their spread were imposed by neither altitude nor dryness of terrain. Both infestations were difficult to combat, as the fleece provided ideal protection for propagating such parasites.

Scab was particularly the bane of the flockowner operating on the open range. Before the dipping vat it was difficult to overcome this disease because of its highly infectious nature, while the labor involved in hand treatment of the lesions precluded eradication. No other malady in sheep has required broad federal quarantine for its cure, though remedial measures for other diseases have frequently necessitated popular education.

\* \* \*

One of the earliest diseases of livestock mentioned in medical history was the liver rot of sheep, described by Hippocrates. Early settlers on the Atlantic Coast had to fight foot rot and stomach or intestinal worms in their

flocks, while the Spanish colonists in the Southwest contended with ticks and scab. Many insect diseases were introduced from Europe, and the typical behavior from gid or sturdy was noted in the early settlements long before the cause was ascertained. Liver worms and flukes were likewise a common annoyance.

All of these parasites were distributed over Europe before introduction to America, and the most serious outbreaks could be traced to imported sheep. In general, the cure of parasitic diseases progressed in proportion to the growing knowledge of the life histories of the parasites. Lung worms, tapeworms, stomach and intestinal worms, flukes, and bots all created problems which the shepherd could solve when the veterinarian pointed the way. Soon the cures for many of these maladies became sufficiently effective that the diseases were reduced to the nuisance class. Such a disease was foot rot.

### FOOT-ROT

The first sheep in the northern Atlantic colonies were Wiltshires and Norfolks. These were of the down and heath breeds respectively, seldom exposed to marsh-infesting diseases. Consequently they were quite susceptible to the lameness later diagnosed as foot rot, when they came into the lowland sections of Massachusetts or the swampy districts of Virginia and Maryland. On Boston

Neck, outside the early settlement at Boston Harbor, English sheep from the Romney Marsh in Kentshire were introduced and they proved more resistant to the poachy conditions. In New York, New Jersey, and Pennsylvania, the Texel breed from Holland met wet-soil hazards with reasonable success, but farther south, where slaves were the caretakers, the problem was more critical. Foot rot impeded westward progress of flocks in Virginia and their spread into the Chesapeake district of Maryland.

The date when foot rot first reached America is unknown, although it was long before its specific nature was recognized. The first medical description was prepared by Chabert in 1791, who reported it on the banks of the Gironde and lower Medoc in France, to the north of the Pyrenees. But in 1797 an agricultural settlement in Illinois found the disease a severe hindrance. During the next decade several flocks were established on the prairie where the commonest causes of disaster were foot rot, liver disease, wolves, and panthers. These hindered the establishment of large bands, and the pioneers confined their efforts to small flocks that could be guarded constantly and given careful attention.<sup>1</sup>

By the early 1830's contagious foot rot was well known in Maryland and Virginia, and three to four years were required to eradicate the disease after it became established. When sheep raising revived in the Midwest during the late fifties, flocks moved into new sections in numbers previously unequaled. En route, infected animals spread the disease into other flocks. Ohio, southern Michigan, Illinois, and Iowa were most seriously affected and years of strenuous effort were required before the disease was even partially subdued. During this period its infectious nature was observed, and the out-

breaks were traced regularly to the careless handling of diseased sheep from other localities.<sup>2</sup>

In 1838 Youatt wrote:

This disease . . . exists . . . in every situation that increases the growth of the hoofs without wearing them away. Sheep that are brought from an upland range are more particularly subject to it. This is very easily accounted for. By means of the exercise the animal is compelled to take on account of the scantier production of the upland pasture, and also in consequence of the greater hardness of the ground, the hoof was worn down as fast as it grew; but on its new and moist habitation the hoofs not only continued to grow, but the rapidity of that growth was much increased, while the salutary friction which kept the extension of the foot within bounds was altogether removed.<sup>3</sup>

The mountain or down sheep—"the sheep in whose walk there is no poachy ground, if he is not actually exposed to infection by means of the virus"<sup>4</sup>—knew nothing at all about foot rot; "it is in the yielding soil of the low country that all of the mischief is done."

The progress of the disease was easily recognized. The first sign was lameness of the animal. When caught, the foot was feverish and tender. Gradually the horn would become softer, the hoofhead would enlarge, and the horn begin to separate from it. Portions of the horn would then wear or break away and the ulcers which formed beneath would emit a fetid fluid. Finally "fungous granulation"<sup>5</sup> would separate the hoof until flesh and horn parted and the latter would drop off.

More than a century and a half ago, paring of the loose and broken parts of the hoof to gain direct access for the medicines was appreciated. Astringents

<sup>1</sup> John R. Mohler and H. J. Washburn, "Foot-Rot of Sheep," *Twenty-First Annual Report of the Bureau of Animal Industry*, 117-18.

<sup>2</sup> *Ibid.*, 119.

<sup>3</sup> Youatt, *Sheep, Their Breeds, Management, and Diseases*, 137.

<sup>4</sup> *Ibid.*, 136.

<sup>5</sup> *Ibid.*

or caustics were used to dry out the excretions, and moist disinfectants were avoided. In 1810 Livingston recommended a very laborious treatment:

I cured mine in one day by the following remedy: half an ounce of saltpeter, ditto common salt, ditto blue vitriol (sulphate of iron), pounded in a glass mortar; five ounces of strong vinegar, three ditto spirits of turpentine; shake them together; wash the feet of the sheep in soap suds, and render them very clean; wipe dry and then apply the remedy by dropping it between the claws (the sheep being on his back), and passing a linen rag saturated with it between the hoofs. Keep him twenty-four hours on a dry floor.<sup>6</sup>

Youatt in 1838 endorsed chloride of lime or butyr of antimony, followed by tar to cover the lesions;<sup>7</sup> Spooner in 1844 suggested magnesium sulphate, or oil of tar and creosote;<sup>8</sup> while Stewart, about a half-century ago, recommended washing in copper sulphate—bluestone—followed by an ointment whose main ingredient was pitch.<sup>9</sup>

On several occasions during the Merino boom the charge was made that imported Spanish Merinos brought the disease. But the breed in Spain was remarkably free from foot rot, and lived on dry ranges. Hence it was highly susceptible when first introduced to this country. Many flocks were seriously infested before the enthusiastic new owners recognized what they were facing. As the Merinos spread beyond the Alleghenies, especially in eastern Ohio and Kentucky,<sup>10</sup> the problem became intensified.

The climax in the spread of foot rot came in the Midwest in 1906, followed a year or two later by lip-and-leg ulceration. A complicating organism present in these diseases was found to be a necrosis-causing bacterium, and the Pathological Division of the Bureau of Animal Industry established officially approved means of control for the farm or range. Once the method was thoroughly established it became part of

the regulatory program of the Bureau for the years 1909–11, and the disease is now definitely on the wane.

#### TICKS

Ticks, too, have been known since the earliest times. Sturdy, well-nourished, mature sheep withstand their bites and blood-sucking fairly well, but ewes in poor condition, and lambs especially, suffer severely. Youatt describes their attacks rather luridly:

The sheep tick is a formidable insect. Its instruments, for piercing the skin and almost burying its proboscis and its head within it, are three in number; but it adheres so firmly to the skin chiefly by means of its six legs, which are exceedingly muscular and powerful, and armed with strong, double-serrated claws. It is a nimble animal, and runs quickly enough about the sheep in search of some favorite spot, and, when it has fixed itself there, it will hang for weeks and months together. . . . It propagates with much rapidity, although not to be compared with the sheep louse.<sup>11</sup>

Spooner mentioned similar characteristics, but noted that ticks selected "the neck and shoulders in preference to other parts."<sup>12</sup> He recommended treatment with turpentine, linseed oil, or mercurial ointment, or dipping, as for scab, with a solution of arsenic.

In 1807 Livingston felt that the English remedies for the tick were inadequate for fine-wooled sheep and wrote as follows:

This insect (the tick) is extremely hurtful to sheep; it often reduces their flesh by the pain it induces, and spoils their wool by their tangling and rubbing it against trees and fences. Lean sheep are so frequently covered with them as to

<sup>6</sup> Livingston, *An Essay on Sheep*, 228.

<sup>7</sup> Youatt, *Sheep, Their Breeds, Management, and Diseases*, 139.

<sup>8</sup> W. C. Spooner, *The History, Structure, Economy, and Diseases of Sheep*, 415–516.

<sup>9</sup> Henry Stewart, *The Domestic Sheep: Its Culture and General Management*, 342.

<sup>10</sup> See page 86.

<sup>11</sup> Youatt, *Sheep, Their Breeds, Management, and Diseases*, 145.

<sup>12</sup> Spooner, *The History, Structure, Economy, and Diseases of Sheep*, 385.

occasion their death. The remedies applied in England are solutions of arsenic or corrosive sublimate, and decoctions of tobacco. The first are dangerous to the operator, and may occasion fatal accidents; the last are hurtful to the sheep if not carefully applied; but all are ineffectual on thick-wooled sheep because it is impossible to diffuse them equally.

I have happily discovered a mode of entirely destroying the tick, which is easy in the application, and attended with no danger. Take a bellows, to the nozzle (*sic*) of which a pipe must be applied capable of containing a handful of tobacco (the refuse from the tobacconists will answer); set fire to the tobacco, and while one man holds the sheep between his knees, let another open the wool, while a third blows the smoke into the fleece; close the wool on the smoke, and open another place a few inches from it, and so go over the whole sheep, blowing also under the belly and between the legs; in twenty-four hours every tick will be killed. The whole operation may be performed upon a sheep in about two minutes.<sup>13</sup>

A few decades back, Stewart stated that the greatest loss from ticks came from the disturbance to the health of both sheep and lambs, as well as the drain on the growth of the lambs. Ticks usually crowded onto the lambs the moment that the ewes were shorn, and the lambs suffered from the blood-sucking, "one hundred of which on a lamb will easily drain it dry of blood in a few days," so that they "never after recover the loss of vitality thus inflicted upon them."<sup>14</sup>

Treatment for ticks has gradually evolved into dipping in the same way and at the same time as for scab. Stewart closes:

It is the best way to dip the flock expressly for this purpose at shearing time, which is also advisable as a means of avoiding infection by scab. . . . The ticks that remain in the wool, wrapped in the folded fleeces, will starve in a few days.<sup>15</sup>

#### SCAB

The most costly and widest spread disease affecting sheep is scabies or "scab," often known as mange. It is one of the oldest sheep maladies recognized, and is easily the most prevalent. Just when scab was first identified is not

recorded, although Aristotle in 322 B. C. was apparently familiar with it.<sup>16</sup> The disease was mentioned in the Bible.

Whosoever offereth a sacrifice of peace offerings unto the Lord to accomplish his vow, or a free-will offering in beeves and sheep, it shall be perfect to be accepted; there shall be no blemish therein. Blind, or broken, or maimed, or having a wen, or scurvy, or *scab*, ye shall not offer these unto the Lord.<sup>17</sup>

In his third Georgics, Virgil suspects that "cold ice may injure the gentle flocks and produce scabs and filthy sores," but shepherds far ahead of Virgil's day in Rome understood the practice of "smearing the sheep as a preventive or cure of this worst of all the parasites of the flock."<sup>18</sup>

As late as the last century it (the cause) was not known, but the best informed of the shepherds of that day thought that the disease was due to "suppressed perspiration, and bad keep, dogging, and the exposure to the cold and wet." The scab was then declared to be of spontaneous origin, and the existence of the pestiferous insect was never understood.<sup>19</sup>

Apparently the first person to recognize the true nature of scab was Wichman, who reported on the subject in 1786. But he erred in thinking that it was caused by the same insect that produces scabies in man. In the United States about the opening of the nineteenth century, it was believed to be a "humor of the blood," which brought about the skin eruption. Occasional naturalists recognized the actual parasite, but believed it developed by "spontaneous generation" under the supposedly favorable conditions existing in scabby skin. Before 1810 the mite was definitely identified, though nearly four decades passed

<sup>13</sup> Livingston, *An Essay on Sheep*, 229-30.

<sup>14</sup> Stewart, *The Domestic Sheep*, 364.

<sup>15</sup> *Ibid.*, 365.

<sup>16</sup> D. E. Salmon and C. H. Wardell Stiles, "Sheep Scab: Its Nature and Treatment," *Fourteenth Annual Report*, Bureau of Animal Industry, 98.

<sup>17</sup> Leviticus, Chapter XXII: Verses 21-22.

<sup>18</sup> Stewart, *The Domestic Sheep*, 357.

<sup>19</sup> *Ibid.*, 357-58.

before it was proved that the disease could not develop in its absence.

The first symptom to call attention to an infected sheep is its itching, the animal rubbing itself against fences, trees, or any convenient object. This usually occurs about twelve days after infection. On examination, pustules are found on the part affected, and the skin seems rough, with the so-called pimples hard. The pustules soon break from the rubbing and a fluid escapes which, when dry, forms the scab. This scab may spread over a good portion of the body, loosening the wool and leaving bare spots of skin and the pendant tags of wool characteristic of infected sheep. In the worst cases flies attack the sores and their maggots eat deeply into the flesh, defying most remedies.

The disease is actually caused by tiny mites (*Psoroptes*) which make holes no larger than a pin, and burrow under the skin, producing irritation as well as the pustules. When the scabs form, the insects lay their eggs beneath, eight to fifteen, which mature in about fifteen days. It is mathematically possible for a single mite to produce in three months (six generations) a million offspring, and in the case of maximum fertility, more than eleven million. These figures nowise suggest the irritation and suffering which an infested animal must undergo.

The losses are due to the shedding of wool, the decline in condition, and the death of the sheep. Occasionally, flockmasters have been forced out of the industry because of the severity of these losses.<sup>20</sup> In destruction of invested capital, sheep scab proved second only to hog cholera before federal controls were applied to the disease.

Scabies sometimes progresses without much outward evidence. Youatt quotes Sir Arthur Young (before 1800) on cases

where the skin shows no sign of the disease:

The sheep rub themselves in all attitudes . . . some few are taken as if mad, jumping and staggering about as if drunk, and they are wasted away, and die in three or four months; the flesh is then quite green, but not stinking.<sup>21</sup>

With his Merinos in the first decade of the last century, Livingston stated that "the disorder which most affects our sheep is the scab."<sup>22</sup> He recommended that as soon as the sheep began to rub or the wool to rise, the loose wool be pulled out and "a little spirits of turpentine and hog's fat" be rubbed on the place.<sup>23</sup> He felt sheep were liable to a fatal attack if they were once permitted to lose their wool and wrote:

I have never failed to cure mine in ten days by the following treatment. First, I separate the sheep (for it is very infectious); I then cut off the wool as far as the skin feels hard to the finger; the scab is then washed with soap suds and rubbed hard with a shoe brush, so as to cleanse and break the scab. I always keep for this use a decoction of tobacco, to which I add one third, by measure, of the ley of wood ashes, as much hog's lard as will be dissolved by the ley, a small quantity of tar from the tar bucket, which contains grease, and about one-eighth of the whole, by measure, of spirits of turpentine. This liquor is rubbed upon the part infected, and spread to a little distance round it, in three washings, with an interval of three days each.<sup>24</sup>

## Lime and Sulphur dressing for Sheep

4 oz Sulphur } to one gallon water  
2. Lime }

Sift the sulphur free from all knots, slack lime and sift also.

Boil the quantity to the size of the boiler, put the material in boiler and boil for one quarter of an hour. and keep stirring with a view of thoroughly amalgamating ingredients, it is then ready for use.

Six pounds of tobacco infused in a covered tub may be added to each 100 lbs of the above material if desired.

Heat to be kept between 110° & 112 degrees. Soak each sheep one half a minute.

All very bad diseased sheep to be drafted from the others and get three dressings and soak a full minute the remaining part of the flock to be dressed twice.

An interval of ten days to be allowed to elapse between each dressing.

Cost of each dressing after shearing about 40¢ to 50¢ per thousand.

Receipt of Mr. Lague, sheep supplier, of Colony of New Zealand

FIG. 109—Lime and sulphur dressing for sheep Recipe secured from Australia in the eighties and used by Warren Livestock Company.

and arsenic, and agreed with Sir Joseph on mercurial ointment, although warning against using it in too large quantities or too strong.<sup>25</sup>

Spooner, in the forties, favored dipping sheep in an "infusion of arsenic," half a pound to twelve gallons of water. He recommended that it be "thoroughly applied to the skin, which it could reach, as well as saturate the wool; and this will be greatly facilitated if the sheep is previously washed with soap and water."<sup>26</sup> He warned against submerging the sheep's head and permitting the mixture to enter the lungs.

Stewart took care to point out that the disease was at its worst in the fall and winter because of the inability of poorly-nourished and diseased flocks to resist. He warned against lime-and-sulphur dips on account of their harshening influence on the fleece,<sup>27</sup> although he acknowledged their efficacy.

Outbreaks of scab were very common in the Spanish Southwest during the Civil War.<sup>28</sup> Also during the days of the great trail drives, the heavy infestation in California spread into Idaho, Montana, Utah, Wyoming, and Colorado—even to the North Platte Valley of Nebraska. Both scab and ticks infested the grass and trails, and serious outbreaks came every season, especially throughout the eighties.

#### RESTRICTING SPREAD OF DISEASE

The westward movement was well under way in the Pennsylvania-Ohio border country before flockmasters recognized how sheep diseases were spread by the emigrating flocks. Early efforts were not directed toward controlling the diseases, but detouring infected animals. There existed no means of keeping diseased flocks off public highways, but local opposition to overnight grazing helped deflect them from areas where they were feared.

The first regulations preventing the movement of sheep into particular districts were local. In some cases they were enforced by the town police through which the highways and turnpikes passed; in other cases by county sheriffs. There were sporadic attempts to obtain state enforcement, but in the early settlements retaliatory public opposition to dog laws made it difficult for sheepmen to secure any kind of legislative protection.

Apparently the pioneer state law in controlling the infectious diseases of animals was passed by the Commonwealth of Massachusetts in 1860. This law recognized the fact that such diseases could be spread by driving infected flocks over public roads, by the promiscuous use of pens, shelters, and feed lots, and even by contact through the old stone fences. Inspectors were authorized to identify and quarantine diseased flocks. Regulations for eradicating the various maladies were promulgated and provisions for release from quarantine powers were also written into the law.

For nearly two decades longer little legislative progress was made in controlling the health of sheep, although in late 1870 the Territory of Washington passed a law to prevent the spread of scab or other infectious diseases in the counties of Walla Walla, Columbia, Whitman, Stevens, Yakima, and Klickitat. In 1878, the New York Legislature approved an "act in relation to infectious and contagious diseases of animals" that elaborated on the original Massachusetts law.

Much legislation affecting sheep was

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<sup>25</sup> Youatt, *Sheep, Their Breeds, Management, and Diseases*, 143–14.

<sup>26</sup> Spooner, *The History, Structure, Economy, and Diseases of Sheep*, 378.

<sup>27</sup> Stewart, *The Domestic Sheep*, 362.

<sup>28</sup> See pages 382–83.

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stimulated by problems in cattle. The fight between the Texas drivers and the Kansas grangers over the trailing of ticky cattle started a wave of law making. In February, 1867, the Illinois legislature passed an act preventing the importation of Texas cattle into the state. Later in the year Colorado forbade the importation of "any bull, cow, ox, steer, or cattle of whatever description known as 'Texas cattle' for the purpose of small stock raising, growing, herding, or feeding, or for any purpose whatever." This latter law was amended two years later, so that all diseased stock had to be isolated six miles from any farm and herd. It thus became the forerunner of the "six-mile" laws in the West that kept trail sheep from towns, farms, cattle ranges, etc., and on its experience much of the state legislation dealing with the control of sheep diseases was based.

Wholesale movement of sheep over the trails east out of California and Oregon, and of cattle over the trails north out of Texas, spread disease so thoroughly that a wave of state laws came out in the early eighties. Wyoming authorized a territorial veterinarian in 1882, and a year later Wyoming, Montana, and Idaho all passed laws to prevent the spread of scab and other contagious diseases in sheep. In the farming states, Iowa and Kansas passed laws to control contagious diseases of sheep, cattle, and swine in 1884. Ohio, Michigan, Wisconsin, Minnesota, Nebraska, and Missouri all followed suit in 1885.

The agency to enforce the laws varied with the states. In the Northeast, State Boards of Agriculture were given the power. In the Midwest, combinations of Boards and State Veterinarians were preferred. In the range country, Sheep Sanitary Commissions, Cattle Sanitary Boards, and general Boards of Animal Health, working in many cases through State Veterinarians, were most popular.

#### FEDERAL DEPARTMENT OF AGRICULTURE

Independent enforcement of state and territorial regulations produced much confusion in the livestock trade. But before it became unbearable, numerous interests discovered that it was necessary to establish authority that transcended state powers in order to control livestock movement across state lines. Emphasizing the situation were the outbreaks of contagious pleuropneumonia in the late sixties, and of anthrax and foot-and-mouth disease in all species of cloven-hoofed animals during the seventies. The livestock export trade built after the Civil War suffered a devastating blow when European countries prohibited the introduction of American animals because of disease.

Up to 1862 federal agricultural affairs were handled by the U. S. Patent Office. This situation arose through the contact of the Commissioner of Patents with the inventors of agricultural machinery. Gradually he was called upon to furnish information and advice, hence he developed the responsibility of looking after the agricultural interests. In the report of the Commissioner of Patents for 1837, Henry L. Ellsworth, then Commissioner, first suggested the desirability of extending federal assistance to agriculture. However, it was twenty-three years before an agricultural division was established in the Patent Office, despite the work it was doing. One of its first jobs was to report on the prevalence of hog cholera.

The United States Department of Agriculture was established by Congress, May 15, 1862, but no attention was paid to animal diseases. By 1869 advice on their control was published in the annual reports of the Department. The Commissioner of Agriculture, General Horace Capron, recommended the establishment of a Division of Veterinary Surgery in that year, repeating it in 1870. But it was

not until July 1, 1881, that Dr. D. E. Salmon was employed as an investigator of animal diseases, and not until May 1, 1883, that he was provided with facilities for investigation.

His studies were immediately directed toward sheep scab, foot-and-mouth disease, anthrax, Texas fever, contagious pleuropneumonia, hog cholera, and contagious abortion. His first requests for authority were to control communicable diseases, to prevent the importation of foreign plagues, and to assemble information valuable to the stockgrower, so that American meats and animal products might attain free access to world markets.

Great Britain initiated opposition to the importation of domestic animals from the United States in 1879 with an order which prohibited the introduction of live sheep and cattle, because of an alleged outbreak of foot-and-mouth disease. This remained in force until 1892, when the State Department successfully proved there was no foot-and-mouth disease in this country. In 1896, the large number of scabby sheep sent abroad revived the prohibition. American sheep had to be slaughtered at the docks where landed, under restricted market outlets and unfavorable prices. On continental Europe even this privilege was denied, and our export trade in live sheep disappeared temporarily.

Each of these problems, with its preceding conditions, was pressing during the early eighties. But on May 29, 1884, Congress passed "an Act for the Establishment of a Bureau of Animal Industry, to prevent the exportation of diseased cattle (and other livestock), and to provide means for the suppression and extirpation of pleuropneumonia and other contagious diseases among domestic animals." Recognition was given state laws, and early court decisions indicated that the federal authority did not over-

ride the Kansas law, for instance, which provided for protection of its livestock from contagious diseases,<sup>29</sup> nor the Colorado statute which prevented the introduction of any contagious or infectious diseases among cattle.<sup>30</sup>

Soon the question of compensating owners of infected animals, when the latter had to be slaughtered in controlling disease, acquired national importance. It was doubted whether the Bureau had authority to make such payments. In 1885 the Attorney General decided against this issue, despite its popular appeal. Another important question was not settled until 1896 when the Federal Government lost a case involving intrastate control to the Texas and Pacific Railroad.<sup>31</sup>

The original law provided that the Secretary of the Treasury might prevent the exportation, from any port of the United States to any port in a foreign country, of livestock infected with "any contagious, infectious, or communicable disease." On this precedent the transportation of diseased stock by rail, with the knowledge of the carrier, led to penalties (in 1896). It became the duty of the several United States district attorneys to prosecute all violations of the Act. Finally it was required that an annual report be issued giving "full particulars of the means adopted and carried into effect for the suppression of communicable disease among domestic animals."

#### FEDERAL ERADICATION OF SCABIES

The great losses from, and the contagious nature of sheep scab turned the attention of the Bureau to eradicating

<sup>29</sup> Kansas and Topeka R. R. Co. vs. Haber, 1898, 169 U. S. 613, affirming 56 Kansas 694.

<sup>30</sup> Reid vs. People, Colorado, 1902, 68 Pac. Rep. 228, following Railway Co. vs. Hesley 158 U. S. 98 and distinguishing Railroad Co. vs. Husen, 95 U.S. 465.

<sup>31</sup> Davis vs. Texas and Pacific R. R. Co., 1896, 12 Texas Civ. App. 427.

this disease as one of its earliest undertakings. On March 2, 1895, the Chief of the Bureau issued regulations prohibiting shipment, from one state into another, of any sheep affected with scab, as well as certain other communicable diseases.

Such diseases were disseminated and were to a large extent due to contagion carried through channels of interstate commerce, and . . . they could never be controlled, or their ravages greatly diminished, until these interstate channels of commerce were thoroughly supervised and purified, and . . . this purification must include all those channels, the stockyards in which the animals were unloaded, watered and fed, as well as the railroad cars and boats which transport them. . . . The fact was mentioned that a large export trade in live sheep which had recently been established was menaced by the discovery of scab in many lots when they were landed in foreign countries. . . . At first employees were stationed at public stockyards to inspect animals offered for export. It was found that the disease continued to appear during the voyage after all infected lots had been rejected.<sup>32</sup>

The Department of Agriculture issued an order on June 18, 1897, which notified railroads, transportation companies, stockmen, and others, that scab existed among sheep in the United States and that it was a violation of the law to receive for transportation or to transport from one state to another stock affected with this disease. The order also required the cleaning and disinfection of railroad cars, boats, or other vehicles used for the transportation of scabby sheep. Federal inspectors were placed at the principal feeding points on all railroads leading to market.

On July 20, 1899, the order was extended to require dipping of all sheep shipped from stockyards for feeding purposes; the dip to be of a preparation that would kill the parasites. About 770,000 animals were dipped that year and the results were so effective that it was optimistically stated that stockyards, railroads, and other channels of interstate commerce would soon be free from infection.

The effectiveness of dips also began to assume importance. Some of those on the market failed to kill the mites, and others which were effective under laboratory conditions were not effective in the field. Numerous tests<sup>33</sup> were made at various markets. Nicotine-and-sulphur, lime-and-sulphur, and tobacco extract-and-sulphur all proved to be effective when applied properly, and ineffective when not.

For example, nicotine-and-sulphur at South St. Paul proved 100 per cent effective but at Kansas City and St. Joseph only 64 per cent effective. Lime-and-sulphur, under the B.A.I. formula, was 100 per cent effective at Casper, Wyoming, and at Clayton, New Mexico, but utterly ineffective at Fremont, Nebraska, and at Cokeville, Wyoming. Of all the stations where tests were made, Kansas City alone used the three dips. Apparently the same efficiency or carelessness was prevalent in their workers, as the lime-and-sulphur was found to be 67 per cent effective; nicotine-and-sulphur 64 per cent effective; and tobacco extract-and-sulphur, 72 per cent effective.

As a result of these tests, tobacco-and-sulphur and lime-and-sulphur were finally approved. In 1907 permission was given to use creosote dips. But after several years of experiments it was found that they did not give the desired results and on August 18, 1913, it was ordered that no dip, other than lime-sulphur or nicotine, would be officially permitted for use against sheep scab.

In 1900 special sheep inspectors were stationed in the range states in cooperation with the State Livestock Sanitary officials to control dipping. In 1903 more than eight million sheep were dipped,

<sup>32</sup> U. G. Houck, *The Bureau of Animal Industry*, 295-96.

<sup>33</sup> D. E. Salmon, *Seventeenth Annual Report*, Bureau of Animal Industry, 85.

while in 1908 more than seventeen and a half million were thus treated.<sup>34</sup> As the work progressed it was found that dipping at stockyards and feeding points would not eradicate the disease, and inspection was extended to points where sheep were accepted for interstate shipment.

Even this did not give satisfactory results, so on June 1, 1905, all territory west of the eastern border of North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, and Texas (an area of more than 1,700,000 square miles) was placed under federal quarantine. A plan of inspection for all sheep, and treatment of affected or exposed flocks, was worked out with the state Sheep Sanitary Commissions.

This plan proved very effective, although disorganized by the first World War. Today the quarantine has been removed and the rare outbreaks are treated at the point of origin. During the last ten years only 3.3 per cent of our sheep, on the average, have had to be dipped annually under official inspection.

#### A STATE SCABIES PROGRAM

The first attempts at cleaning up disease in range flocks met with hostility from certain classes of sheep owners. Few of them understood the significance of infection in their own flocks, but all of them saw the expense and physical effort involved in eradicating it. Both federal and state inspectors faced strong opposition, and in many cases were driven from their legal duty at the muzzle of a rifle or six-shooter.

In 1890 a correspondent, writing the Bureau of Animal Industry about conditions in New Mexico, stated that the greatest difficulty besetting the flockmaster was the careless, indifferent management of scabby sheep. All sheep owners practicing progressive methods

of control were handicapped by slipshod associates who ignored the legislative enactment. Only the physical enforcement of the law was able to produce results. Hence the Sheep Sanitary Board of New Mexico was established in 1897 by the 32nd Legislative Assembly, under "An Act to Prevent the Introduction and Spread of Disease Among Sheep in New Mexico and Providing Remedies Therefor." This permitted access to privately owned flocks and clothed the Board with authority to initiate control measures against sheep diseases.

The record of controlling sheep disease in New Mexico is typical of other western states, as the problems facing the officials in each state were strikingly similar. However, in New Mexico (and to a lesser degree in Arizona) the presence of Indian flocks developed serious issues, while their loose control for disease-eradication purposes stimulated interbureau jealousies. The Indian Service possessed high seniority among federal agencies, based on date of establishment. In its zeal to maintain its own prestige, it frequently hampered the joint cleanup efforts of the State Sheep Sanitary Board and the United States Bureau of Animal Industry. Often the petty officials of the Indian Service seemed as ignorant as their charges of ideas of sanitation and disease control.

#### SHEEP SANITARY BOARD OF NEW MEXICO

There were three original appointees to the Sheep Sanitary Board of New Mexico—Solomon Luna of Valencia, José Gomez of Clayton, and W. S. Prager of Roswell. The organization meeting was held at Las Vegas in the office of the Cattle Sanitary Board, June 4, 1897. The

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<sup>34</sup> Dr. A. W. Miller, Letter to author, October 19, 1943. See Statistical Appendix No. 7 for record of inspections and dippings.

first act was to elect a secretary at a salary of forty dollars per month—Antonio Lucero of Las Vegas. Permanent headquarters were established in that city and the compensation of members of the Board was fixed at five dollars per day, when necessarily employed.

Several important decisions were made at the first meeting. The secretary was instructed to obtain copies of the bylaws, rules, and regulations of the Sheep Sanitary Boards of Texas and Colorado. As a step toward controlling sheep thefts, a detective was appointed—S. S. Mendenhall of El Paso—to check sheep crossing the Texas-New Mexico border. Fees were placed at the same rates per head as for disease inspection. Finally it was decided that regular meetings of the Board should be held semi-annually, on the second Thursday of June and December, although called meetings were also authorized.

The most immediate necessity was inspectors. Temporary appointments were made from the most highly respected sheepmen of the state, including such individuals as Silvestre Mirabál for Valencia County; H. M. Miller for Chavez County; Jesus Maria Valdés for Colfax County; Juan Joseph for Taos County; Candido Garcia for Union County; J. M. Archuleta for Rio Arriba County; and Camillo Muñez for Lincoln County. These inspectors were empowered to collect fees of one cent per head for stock sheep and two cents for rams, on all sheep coming into New Mexico from other states or territories. If the owner failed to give notice of intention to drive within ten days of that date, the fees were to be doubled. Scabby sheep were to be dipped at the expense of the owner.

Two called meetings of the Board were held in July and inspectors were appointed for San Miguel, Dona Ana, Bernalillo, Guadalupe, Sante Fe, and

Eddy counties. The secretary was authorized to learn who would make acceptable inspectors for Grant, Sierra, and San Juan counties. All temporary inspectors were appointed permanently as of July 29. Rules and regulations were issued, and it was determined that inspectors should go through every flock in their counties at least once a year. Standard dips, such as Cooper's or Little's, and the Bureau of Animal Industry's formulas for lime-and-sulphur dips, were authorized. Inspectors were also granted power to quarantine infected sheep, and to look over outgoing as well as incoming sheep. While so working they were to receive three dollars a day. It was again voted that owners must notify the Board of their intention to ship or drive sheep. The word "sheep" was extended to rams and to include goats.

Before the year finished, the work piled up so that a meeting was held October 6, and additional inspectors were appointed for several of the larger sheep counties. In Bernalillo County, the duties were divided, Ricardo Lewis being continued as inspector for sheep moving in or out, while Francisco Montoya was appointed range inspector. Owners were required to earmark their sheep, and their brand was recorded for a fee of fifty cents. As a measure of cost to that date, bills were approved for salaries and expense totaling \$2,056.

The first regular meeting of the Board was held December 9, 1897, and the second on June 11, 1898. At this latter meeting several shifts were made among inspectors, to improve efficiency. The inspector in Socorro County was removed and one of the state's leading sheepmen—Manuel S. Pino of Datil—was appointed in his place. By this time the principal inspections for the whole Territory were completed, and the Board decided that further inspections would be made only on order, unless actual infection was

reported among the sheep. When unreported infections were discovered, fines appropriate to the circumstances were authorized, which the inspectors were ordered to impose and collect.

During the summer of 1898 the headquarters of the Association was changed to Albuquerque, and Antonio Lucero, the secretary, resigned to act as shipping inspector at Las Vegas. The new appointee, Harry F. Lee, ranked second only to Solomon Luna in responsibility for the complete sanitary cleanup of New Mexican sheep. His salary was first fixed at fifty dollars per month.

By this time enough experience had accumulated to render amendments to the sheep sanitary law essential. On January 20, 1899, such amendments were approved by the Board. Solomon Luna was instructed to take the draft, when ready, to Santa Fe to obtain their passage by the legislature. Fortunately he was successful. On March 30 the state was divided into three districts, W. S. Prager of Roswell representing the first district; Solomon F. Luna of Los Lunas the second district; and Harry W. Kelly of Las Vegas, the third district. Luna and Prager were re-elected president and vice-president respectively, with Harry Lee still secretary. This was the personnel that over a period of years established the smooth functioning of the Board.

The Board's regulations were altered slightly in some respects. In response to complaints of many flockowners, inspectors were instructed to be as lenient as the circumstances would permit, and still eradicate scabies. In event of difficulty or controversy, inspectors were invited to seek the advice of the members of the Sheep Sanitary Board, or its secretary, before resorting to the courts. In addition, the secretary was granted power in emergency to appoint special sheep inspectors, who were to be paid

on the same basis as the regular inspectors. Finally, on complaint sustained by the testimony of reliable sheep owners, any inspector could be removed from office and fined not more than one hundred dollars within the discretion of the Board.

Fifty inspectors were appointed and their names still included the outstanding sheepmen of the entire state—such as H. M. Miller of Roswell; H. C. Abbott of Springer; G. W. Bond of Wagon Mound; Epimenio Martinez of Wagon Mound; Antonio José Aguilar of Anton Chico; Andolécio Padilla of Tularosa; José S. Madrid of Gallisteo; Frank Bond of Espanola; Manué S. Pino of Datil; André C. Baca of Romero; Silvestre Mirabál of San Rafael; José Salazar of Peralta; and Antonio A. Sala of Pinos Wells.

In May, 1899, the first orders were issued to publish the regulations of the Board, three thousand copies being in the Spanish language and two thousand in English. The secretary was directed to mail copies of these to all sheepmen in the Territory for whom he could ascertain the name and address.

By early June of 1899 the drouth had become so bad that all range inspections were stopped, but the inspectors were told that the Board would order all sheep in the Territory dipped twice between the date of the first rains and December. This was carried out by an order issued August 19 which required all sheep not dipped after the first of June to be dipped before the fifteenth of September, using one of the formulas prescribed by the Federal Government, and a second dipping was required before the fifteenth of December.

Any sheep owner who fails or neglects to comply with this order will be subject to a fine of one cent for each and every head not so dipped, and the respective inspectors for the various

counties have been ordered to enforce this order strictly and to collect such fines, and to have all sheep not dipped as above ordered, dipped at the owner's expense. And in the event of any flock still showing scab after having been dipped twice, the dipping must be continued until the scab is entirely cured.<sup>26</sup>

An interesting brand decision was made December 7, 1899. The Board construed the brand law to regard the combined earmark and fire-brand as one mark. This allowed an owner to have an earmark similar to one recorded if the fire-brand differed, and vice versa. This action was taken to obtain a sufficient variety of brands. The first sign of cooperation with the railroads appeared at the meeting of June 28, 1900, when the secretary was ordered to write the general freight agent of the Denver and Rio Grande Railroad, requesting him to instruct their agents in New Mexico not to accept sheep for shipment without a bill of clearance issued by an inspector from the Sheep Sanitary Commission.

A state line problem had to be considered at the October 13 meeting in 1900. For some time it had been the custom, in some of the valleys coming down from Colorado, that sheep would be driven into New Mexico to load for rail shipment to points east and north. Some of the inspectors tried to boost the Board's finances (and their own) by charging the shippers fees for inspection when entering and repeating it for them when leaving the state. The Board issued orders to charge only on sheep going out, also to make no charge at all for sheep driven in from Colorado a few miles for dipping and then driven back to their own ranges.

By 1903 the number of members on the Board was increased to five, and Charles Schleter of Clayton and T. D. Burns, Jr., of Tierra Amarilla were added. At the meeting of December 20, 1904, the policy was started of laying off

for the winter all inspectors except two. The salary of the secretary was increased to \$125 a month as of January 1, 1905. On August 12, 1905, a quarantine line was established along the northern boundary of Socorro, Lincoln, and Chavez counties, and no sheep were allowed to go south until inspected. Scabby sheep were dipped twice before crossing. This quarantine line was maintained with the Bureau of Animal Industry.

Additional finances were required by 1906, so under an act passed by the previous legislature, the Board established a levy of five mills on each dollar of assessed value of sheep in New Mexico. This was repeated in 1907 and thereafter until 1910 when eight mills per dollar were levied. In 1917 the tax was again reduced to five mills, and in 1920 to four mills. The decline in numbers after World War I forced the resumption of the eight-mill levy in 1922.

Throughout 1907 to 1913 many fines were assessed by the Sheep Board for willful and technical violations of orders. Fines ranging as high as \$250 to as little as \$50 were collected, the majority being \$100. Beginning in 1906, the general dipping of all flocks was frequently ordered, and definite schedules were set in cooperation with the Bureau of Animal Industry. These were sufficiently effective that when the cleanup was completed after the first World War, no further quarantines had to be established except for individual outbreaks. Infected flocks which had not been reported by the owners were placed under guard at the owner's expense until dipped twice, then they could be released. If the owner reported the infection, however, no guard was posted.

Most states had similar experiences in

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<sup>26</sup> *Minute Book of the Sheep Sanitary Board of New Mexico, Albuquerque, New Mexico. Meeting of August 18, 1899.*

getting their sanitary boards established and functioning, but today states like Montana, Wyoming, and Idaho not only have model laws but have practically eradicated contagious disease under all circumstances. Scabies is now limited to sporadic outbreaks only.

#### BUREAUCRATIC STRIFE

Difficulties in enforcing sanitary regulations among Indian flocks commenced early. At the first regular semiannual meeting of the New Mexico Sheep Sanitary Board, December 9, 1897, the original of numerous warnings that had to be sent over the years was issued. The sheep commissioners notified the governors of various Indian pueblos in the southern part of the Territory that they must instruct their charges to dip their sheep and otherwise obey the sanitary laws.

Throughout the next eight years the subject recurred with annoying frequency, and by 1906 the matter of scabies in Indian sheep was quite pressing. Hence the question was taken up with the Chief of the Bureau of Animal Industry, Dr. A. D. Melvin, and Dr. Melvin agreed to pursue the matter further with the Indian Service. Permission was obtained for Solomon Luna and a representative of the Bureau of Animal Industry to call on the Secretary of the Interior. Arrangements were made that the State Sheep Sanitary Board could enforce the dipping of sheep off the reservations, while the Bureau of Animal Industry was permitted to supervise and quarantine flocks on the reservations.

Yet the problem with the Indians still continued. Further contacts were had with the Indian Service in 1912, 1913, and again after the first World War. At the semiannual meeting of June 9, 1921, a resolution was sent to the Secretary of the Interior requesting help

in the control of scabies on the Navajo Reservation, and in the placing of quarantines. The December 15th meeting recorded action on this request, so the Secretary of the Interior finally sent Inspector L. A. Dorrington to control the Navajo dippings. In 1922 the policy was established that the Navajo sheep had to be dipped twice, ten to fourteen days apart. This did not solve the problem completely, but it lessened its importance.

#### SCAB IN THE CORN BELT

One aftereffect of the scabies problem was the development of centers of infection in the Midwest. Before eradication was completed in the range districts, the regular west-to-east movement, ending at the feedlot or farm, introduced the disease at numerous points. For some time the spread of the disease was slow, because the greater number of such sheep went to the central markets for slaughter before they could infect others. With the development of truck transportation and community sale markets, a considerable scattering of infection occurred in such states as Ohio, Indiana, Michigan, Illinois, Iowa, and Missouri. Although relatively small numbers of animals were involved, they were great enough to keep the disease alive, and provide real danger to farm flocks.

The first considerable invasion of sheep scabies occurred in the earlier part of the century in Kentucky. Regional auction markets were operating there, and the spread of the disease seemed associated with their activities. In 1909, therefore, intensive eradication was begun and the infection was greatly reduced. Throughout the next decade the spread was most rapid in Iowa, but in the half-decade 1919-24 it was reduced almost to the vanishing point. Incidence increased again later, and the control of the disease was still quite unsatisfactory



FIG. 110—Loading fat lambs in Solo National Forest, Lathrop, Montana. (United States Forest Service.)



FIG. 111—Loading lambs of A. H. Brailsford, at Horse Creek in Sawtooth National Forest, into double-deck truck for rail shipment from Ketchum. Note tin cans rattled to urge sheep forward. (United States Forest Service.)



FIG. 112—Navajo sheep, trailed out of Navajo Reservation toward rail loading point, being counted at Moenkopi Bridge. (Esther Henderson Photo.)

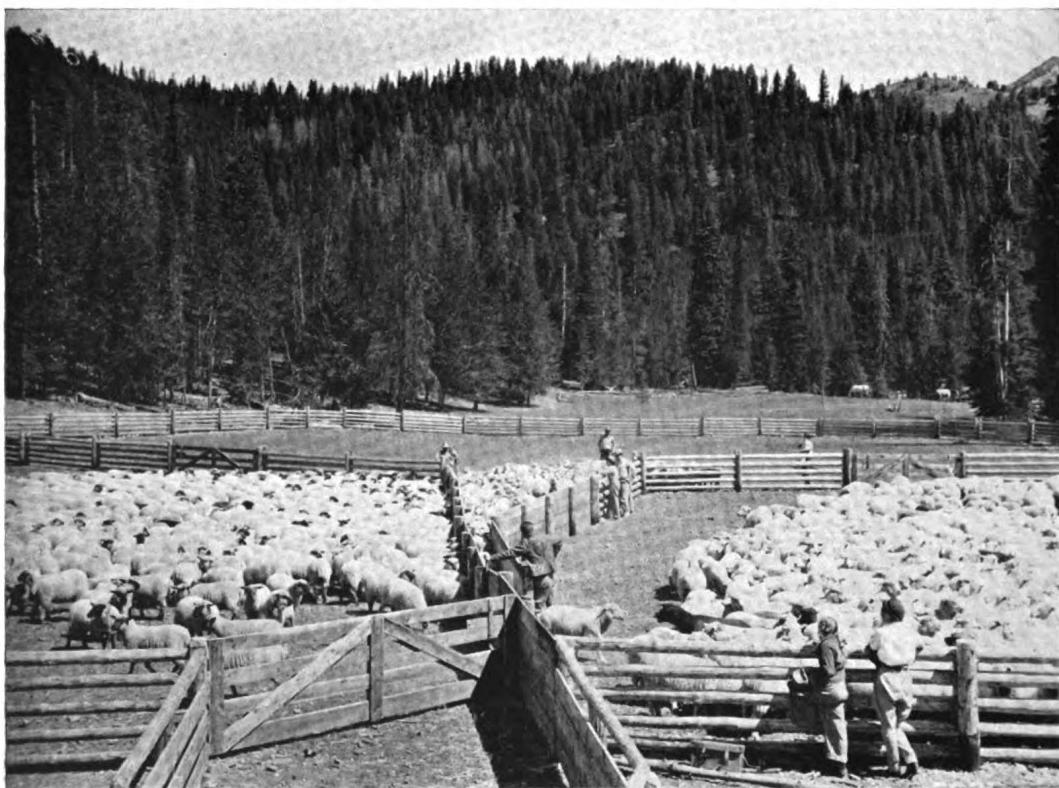


FIG. 113—Sorting sheep of A. H. Brailsford of the Hagerman Valley, Idaho, in the Sawtooth National Forest, before loading out at end of season. (United States Forest Service.)

in 1944, following two years of war. In 1934, there were sixty flocks affected in twenty Iowa counties, but by 1940 there were 142 flocks in thirty-one counties. By 1943, there were still 133 flocks in twenty-five counties harboring scab—all figures based on the semiannual spring reports of the field workers.

Before 1935, active cooperation of the Bureau of Animal Industry had been established in Kentucky, Iowa, South Dakota, Nebraska, and Kansas, and cleanup programs were well under way. In that year 249 outbreaks were discovered in fifty-one Ohio counties, so a cooperative program was set up there. In 1939, Missouri came into the eradication work and made remarkable progress for two years. During 1942 and 1943, Illinois was the worst offender, with 149 outbreaks in forty-seven counties and 252 in sixty-two counties, for the two years respectively. Michigan and Indiana signed agreements to clean up in the fall of 1943.

South Dakota has had the best record in eradicating these scattered infections. Following the great drouth of 1934 there was an extensive spread of sheep scab in the eastern farm section, but by June 30, 1939, all traces had been eliminated. South Dakota is thus far the only state where complete eradication has been achieved in a region where the infection existed among farm flocks.

#### INTERNAL PARASITES

As the problems of scab and ticks diminished under the cooperative programs of the United States Bureau of Animal Industry and the states, internal parasites again became prominent. Sheep harbor more different kinds of parasites and suffer more serious effects from them than other species of domestic animals. More than half of the death losses occurring in farm flocks are directly traceable to these gastro-intestinal pests.

The most important of these parasites are roundworms, tapeworms, flukes, certain protozoa, and the larvae of the nasal fly or bot, commonly called head grub. The general manifestations of worm infestation are loss of flesh, diarrhea, anemia, (noticeable in the mucous membranes of the eye, nose, and mouth), and the development of a "pot belly," accompanied usually by a swelling under the jaw. Sooner or later emaciation and weakness become very marked and death ensues.

The three most important roundworm diseases of sheep are the twisted stomach worm (*Haemonchus contortus*), the nodular worm (*Oesophagostomum columbianum*), and the worm causing "black scours" (*Trichostrongylus*). The stomach worms have always been the most troublesome of the three, causing losses of several million dollars annually. Most of the death losses occur in lambs, where the infestation often develops so rapidly that the youngster dies of anemia before suffering weight losses. In older animals the principal effects are decreased weight and a deterioration of the fleece.

Nodular worms are responsible for a loss of a hundred million pounds of weight in each annual crop of lambs, through stunted growth, poor fleece, and bad conditions; and of more than six million dollars' worth of parasitized intestines, that otherwise would be used for sausage casings, surgical ligatures, musical and tennis strings, special medical coverings, and osmotic membranes.

The larvae of the worm penetrate the walls of the intestinal tract for their early development, and then return to the lumen of the intestine to attain maturity. While imbedded in the intestinal walls, they develop the nodules for which they are named, these nodules containing a cheesy or gritty material. The thickening and constriction of the intestinal walls makes them unfit for

commercial uses. They may cause the death of 5 to 10 per cent of the lambs infested, but the principal loss is in the condition of the animals surviving. In some shipments to the packing house, 30 to 40 per cent of the lambs are condemned.

Fortunately, scientists discovered that all three of these diseases may be controlled by the administration of phenothiazine—as a drench, in capsules, in salt, or with the feed. The Bureau of Animal Industry took an active part in coordinating this treatment, but World War II restricted its use to a considerable degree, since phenothiazine was derived from the same chemical—diphenylamine—which was used in the production of war explosives, war gases, and synthetic rubber.

Phenothiazine has not proved to be effective with tapeworms, flukes, or head grubs, and in most cases the established remedies are still used—copper sulphate (bluestone) and nicotine.

Head grubs are the larvae of the sheep botfly. They are deposited on the sheep's nostrils and migrate into the sinuses of the head. Heavily infested animals suffer from a constant irritation of the membranes lining the sinuses, causing an excessive flow of mucus from the nostrils which may clog the passages and interfere seriously with the breathing. Sheep (and especially lambs in the feedlots) carrying a heavy infestation are unhealthy and make inferior gains. Lambs on feed, showing "runny noses," have always indicated the careless feeder to the expert. Until quite recently, no safe and effective preventive or curative was known for head grub. But in 1941 the Zoological Division of the Bureau of Animal Industry developed a method of irrigating the sheep's nasal passages with a saponated cresol solution that is both safe and effective in ridding the sheep of the troublesome grubs.

Finally the development of the use of rotenone (derris root) for lice and ticks has helped solve another of the old problems. The three modern treatments did much to preserve the efficiency of the sheep industry when wartime regulations, manpower shortages, and war stockpiles of wool provided serious deterrents to the operation of the industry.

#### FOOT-AND-MOUTH DISEASE

The only malady of sheep that acquired political and international significance is foot-and-mouth disease. When attempts were made to improve relations with South American nations in early 1935, one of the concessions requested was exportation to us of their chilled and frozen meats. Five years earlier a sanitary embargo<sup>36</sup> against introduction of fresh meat and live animals from any country harboring foot-and-mouth and certain other livestock diseases had been established through an amendment to Section 306 of the Smoot-Hawley Tariff Act.<sup>37</sup> Because of its inclusion in a tariff enactment it became a political football. A strong opposition to removing the embargo developed among livestock association officers, livestock health officials, sanitary associations, and kindred organizations. Unfortunately, the industries desiring to export products to South America did not appreciate the dangers involved and cooperated with the interests desirous of letting down the bars. Sheep and cattle producers were accused of obstructive selfishness, despite the fact that control of previous outbreaks had cost the nation two hundred million dollars, and stock growers

<sup>36</sup> The motivating influence behind the embargo against the importation of meat from countries harboring foot-and-mouth disease came from the livestock associations; and Fred Ellenwood, Red Bluff, California, and S. W. McClure, Bliss, Idaho, were most influential for the sheepmen, both being direct promoters of the plan.

<sup>37</sup> Section 306A.

were charged with a desire to use the sanitary law as an economic barrier.

Foot-and-mouth disease penetrated Europe from Africa early in the nineteenth century, but the first outbreak in the United States did not occur until 1870 when the disease entered upstate New York by way of Canada. Apparently the virus introduced was weakened, as the attacks were mild and the disease did not spread rapidly. Two or three lots of infected cattle were introduced in 1880-81, but their presence was discovered in time to prevent spread of the contagion. Again, in 1884, there was a small outbreak near the quarantine station at Portland, Maine. The cold weather and the sparse animal population in the surrounding region made quarantine and disinfection measures thoroughly effective. The same spring a spurious outbreak near Neosho Falls, Kansas, stirred national excitement. However, Dr. Salmon, Chief of the Bureau of Animal Industry, was able to identify this disease and certain other contemporary infections as ergotism.

Two outbreaks, in 1902 and 1908 respectively, occurred without obvious channels of infection, but responsibility was finally traced to contaminated small-pox virus brought from Japan. Each attack cost approximately three hundred thousand dollars to eradicate, the Federal Government standing 70 per cent of the cost on the first occasion, and two-thirds of the cost on the second.

The 1902 epizootic was confined to New England; the 1908 spread into Pennsylvania, New York, Michigan, and Maryland. Animals destroyed in the earlier outbreak totaled 4,461 head—of which 229 were sheep and goats. The disease was present in mild form only, but it had apparently been active for more than four months before it was recognized. By the time it had become sufficiently virulent to be identified,

approximately 940 animals in thirty-nine herds had recovered. Numbers of them later contracted chronic lameness, abortion, garget conditions in the udders, and deformed feet, so that they had to be killed despite recovery.

The 1908 outbreak appeared in Pennsylvania, and quarantine was established on November 13. Within a few days the disease appeared near Akron, New York, and on the 19th both states were quarantined. By the 25th, the disease had reached Detroit, and Michigan was tied up, while Maryland was quarantined two days later. As a measure of the work involved in the inspections, 108,683 visits and revisits were made to farms, and 1,565,689 inspections and re-inspections of animals were made. During the outbreak 275 sheep, 7 goats, 1,329 hogs, and 2,025 cattle were destroyed, the appraised value of which exceeded ninety thousand dollars.

The worst outbreak in our history began in 1914. Quarantine was first established in Michigan and Indiana on October 19, and removed at the last point in Illinois on June 15, 1916. It took only thirty days for the infection to reach twenty states and the District of Columbia, dating from the time the disease was definitely identified. Later, two additional states developed outbreaks. Nearly ten thousand sheep were slaughtered, nearly six million dollars' worth of livestock was destroyed, and nearly a thousand men were required to eradicate the disease.

The first outbreak occurred August 2, 1914, on a farm near Niles, Michigan, in a herd of hogs that had eaten garbage containing scraps from South American meat vended by a Niles butcher. The original form of the disease was mild, and it was October 15 before it was positively identified. By that time thirty-nine infected herds were discovered in

Michigan and seven in Indiana, and the disease reached the Union Stock Yards in Chicago so that it was quarantined on October 31. At the end of November the infection had spread to the twenty states and the District of Columbia as mentioned.

Arrangements were made for an even distribution of costs between the state and federal governments to provide for the purchase, slaughter, and burial of diseased or exposed animals, and for the disinfection of premises. Appraisals for payment were based on the commercial value of the animals for meat or dairy purposes. The owner, the state government, and the federal governments were represented at the time of appraisal. Inspectors and others who had to visit infected premises were ordered to wear rubber boots, gloves, coat, and hat when on duty, and all outer clothing had to be washed and disinfected just before leaving premises where infected or exposed animals were found. In addition, each inspector was furnished with a rubber cape, and had to fumigate his own clothes thoroughly with gas generated by mixing formaldehyde and potassium permanganate.

By June 18, 1915, it appeared that the disease was under control. But sporadic outbreaks reappeared in New York on July 28, and in Illinois, Indiana, and Minnesota during early August. The last outbreak occurred in Christian County, Illinois, May 2, 1916, and the quarantine was removed June 15.

Throughout the first World War, particular attention was directed toward preventing sabotage by the introduction of foreign diseases, with especial emphasis on foot-and-mouth disease among animal infections. It was not until 1924 that the malady reappeared—this time in California. On this occasion the disease was discovered on two widely separated farms in Alameda County by different

veterinarians, each of whom had been called by the farm operators to treat sick animals. The first quarantine was established on February 22, with three nearby counties included the next day and others at frequent intervals until seventeen counties had been quarantined by May 12.

Exhaustive investigations traced the disease to a hog-feeding farm near Vallejo where lameness was noted among some hogs on December 10, 1923. The sale of hogs from this ranch to a packing house in West Berkeley spread the disease to that section of Alameda County. That did not explain the original infection, but this point was cleared up when it was discovered that the owner of the hog farm had a long standing contract for the removal of the garbage from the Mare Island Navy Yard. Between November 1 and December 31, 1923, only one vessel arrived at the Navy Yard from any foreign port, and it had taken on fresh meats and other supplies at Kobe, Japan, where the disease existed.

The outbreak required the slaughter of 28,382 sheep, 58,807 cattle, 21,194 hogs, 1,472 goats,<sup>38</sup> and 22,214 deer. Introduction of the disease to deer brought terrific hazards when on May 12 it was discovered in Tuolumne County in the Stanislaus National Forest. It was June 10, 1926, more than two years, before this quarantine was finally released. The cost of exterminating the disease mounted proportionately in this area, since the deer had to be discovered, their escape prevented, each animal shot, and the individual destroyed or interred.

Other outbreaks of a smaller nature occurred after this, two in Texas and one in Los Angeles County, California, in 1929—the last of record. In this latter instance, sanitary regulations forbade even the introduction of garbage from

<sup>38</sup> Charles Keane, *The Epizootic of Foot-and-Mouth Disease in California*, 54.

meats purchased in any country known to be infected with foot-and-mouth disease. Hence, when a steamship belonging to a transoceanic navigation company arrived off San Pedro with a portion of its meat stores (purchased in South America) still unused, it transferred the latter to another ship of the same company outside the harbor. The exposed surfaces of the beef cuts had become dried and blackened, so they were "refaced" and the trimmings deposited in the incoming ship's garbage. In port, all of this ship's garbage was purchased by a Los Angeles hog feeder and infection of the hogs ensued. Fortunately, prompt recognition of the malady, quarantine, slaughter, and burial of infected and exposed animals, plus disinfection of the premises, resulted in rapid eradication of the disease.

#### POISONOUS PLANTS

Poisonous plants are not ordinarily linked with animal disease because they were never a menace to stock raising east of the Missouri River. Forage was luxuriant enough that the herbage dangerous to sheep was quite unattractive to them. Practically no poisonous plant is palatable to livestock (with the single exception of loco weed, where the animals acquire a "drug habit"), hence such plants are eaten only when feed is short. Furthermore, to produce illness, most poisonous plants have to be eaten in considerable quantities, without other feeds to dilute or neutralize their effects.

Sixty-odd varieties of range herbage contain toxins injurious to livestock, though several fail to affect sheep. Of the twenty-four common in the range country, only eight present serious problems. These latter are death camas, laurel, milkweed, lupine, loco weed, poisonous vetches, arrowgrass, and chokecherry. According to National Forest records, based on the summer grazing

season, an average of two thousand sheep and goats were lost annually during the drouth period of 1934-36, while Mohler reports an annual death loss in Wyoming sheep of 14.6 per cent.<sup>39</sup> Yet among all classes of range livestock the losses are estimated at 3 to 5 per cent, and in some states run much higher.<sup>40</sup> Colorado<sup>41</sup> is reported to average a million dollar loss annually, while the nation as a whole has lost as much as twenty million dollars in a single year.

Some plants are poisonous only at particular seasons, as for example lupines, which produce fatalities in the late summer and early fall when the seed pods are ripe. Chokecherry and arrowgrass are poisonous just before the close of the season (arrowgrass from a second growth after cutting), their lethal properties being due to hydrocyanic acid. Poisoning from death camas comes in the spring and early summer, and sheep are particularly susceptible. This is one plant which is quite toxic and small amounts of it may do great harm. Colorado rubber weed, considered as a possible source of rubber in World War II, produces poisoning in late winter.

On the other hand, greasewood is normally used for winter grazing in the Utah, Nevada, and Idaho deserts without ill effects. Yet very hungry animals die quickly if they gorge on it and cases are known where hundreds of head have been lost.<sup>42</sup> The poisonous properties come from the sodium and potassium oxalate in the plant.

Probably the most important of the plants poisonous to sheep is the so-called "loco weed." Six varieties are common, and "white loco" and "sheep

<sup>39</sup> C. B. Marsh, "Stock Poisoning Plants of the Range," *Bull. 1245*, U. S. D. A., I. Prefatory note by Dr. John R. Mohler, Chief, Bureau of Animal Industry.

<sup>40</sup> *Ibid.*, 1.

<sup>41</sup> *Ibid.*

<sup>42</sup> *Ibid.*, 11.

"loco" are the worst offenders. In 1883 Major Shepherd drove a band of sheep across Nevada. His description indicates loco disease, although the symptoms resemble sneezeweed in some respects:

When a sheep has eaten poison his belly swells, he is unable to travel, and lies down. If we get him as far as camp (as by ride on a wagon), without marked signs of distress, his head would be stretched outwards and upwards and next morning he would be dead, still looking a healthy sheep, as the swelling of the body was not very marked. A sort of blind staggers was very common, caused, I think, by the heat. You would notice a sheep fall behind the herd, his feet scrambling and working as if independent of his will; he would stumble, run against bushes, trip, fall down. The only remedy for such customers was to catch them and bleed them by cutting a vein in the face below the eye, which almost invariably cured them. They did not lose much blood and after walking quietly for half an hour took up their usual place in the herd.<sup>44</sup>

The efficiency of this bleeding was never established and was not practiced generally in the sheep industry. The great difficulty with attacks of loco poisoning has been that the animal refuses other forage and apparently starves to death. After eating it, a sheep may stand for hours, or even days, in a kind of stupor and refuse to travel further for either feed or water. A common remedy where available is to place affected sheep on alfalfa, which purges the digestive system and reduces the amount of toxin present. Locoed sheep are usually separated from unaffected ones, as they may induce healthy animals to start eating the weed.

Larkspur is a common cause of cattle poisoning and an occasional cause of horse poisoning, but sheep apparently may eat it with impunity. On the other hand, all known cases of poisoning domestic animals by the Texas "poison bean" or "coffee bean" are confined to sheep. In the latter case the seeds alone are poisonous and something less than two ounces of seeds eaten at one time may produce death. An equally toxic plant is black laurel, found in the north-

ern Sierras of California, while at lower levels the western azalea is responsible for many losses.

From Colorado to Washington a white flowered Rhododendron causes considerable poisoning and some deaths, and in the Southwest several species of milkweed are troublesome. Wild tobaccos cause nicotine poisoning, more common in cattle or horses than sheep, and cockle-burs when eaten produce a narcotizing effect. In Utah and parts of Nevada a plant called western sneezeweed causes many fatalities from "spewing sickness." This is a combination of salivation, nausea, and vomiting that seems to be cumulative when sheep eat the weed for a very long time, although the consumption of an excessive amount may bring it on suddenly.

Finally, in New Mexico and Texas there frequently appears a disease variously known as "trembles" and "alkaline disease," that is caused by eating rayless goldenrod or "jimmy weed." Affected sheep tremble so that they can stand only a minute or two at a time, and then fall.

#### RESEARCH IN POISONOUS PLANTS

The first investigation of poisonous plants and their effects was begun in the United States Department of Agriculture in 1894 when Dr. V. K. Chesnut was appointed assistant botanist. The first laboratory space for poisonous plant studies was assigned to Dr. de Schweinitz in the Bureau of Animal Industry. During the time when Dr. Chesnut was connected with poisonous plant work, studies on the death camas from the pharmacological viewpoint were undertaken by Dr. Reed Hunt. The chemical side of the work was carried on in the Bureau of Chemistry and the pharmacological work was done at the Johns Hopkins University. Almost contemporaneously,

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<sup>44</sup> Shepherd, *Prairie Experiences in Handling Cattle and Sheep*, 224.

raneously, Dr. Torald Sollman was conducting a special study of the lupines under the auspices of the Department of Agriculture, in the laboratories of Western Reserve University.

These studies made the necessity of field investigations obvious, and in the latter part of 1903 Dr. H. T. Marshall was sent to Montana to make a special study of the "loco" problem. This resulted in a number of valuable publications, the final results of which were published some years later in a bulletin of the University of Virginia. In 1905, Dr. C. D. Marsh also began a series of field investigations of loco poisoning in Colorado. A house and land suitable for pastures were obtained at Hugo, Colorado, where the work was continued for four years. The investigations were in cooperation between the Department of Agriculture and the Colorado Experiment Station. This work was so successful that a subsidiary station was opened at the base of Pike's Peak and another at Imperial, Nebraska, in cooperation with the Nebraska Experiment Station.

Beginning in 1909 a cooperative station with the Forest Service was established on the Gunnison National Forest in Colorado for investigating larkspur poisoning. Two botanists were attached here. In 1912 another Forest Service station near Greycliff, Montana, entered into a special study of the poisonous plant problems peculiar to the Yellowstone Valley. Finally, in 1915, a permanent investigating station was established at Salina, Utah, where large pastures were fenced, extensive corrals and a barn built, and facilities for resident work established.

In 1915 all such work was transferred to the Pathological Division of the Bureau of Animal Industry. Many famous scientists were connected with the work, such as Dr. Rodney H. True, Dr. A. C. Crawford, Dr. Carl L. Alsberg, and Mr. A. B. Clawson.

One of the most interesting developments of recent years has been the discovery of selenium poisoning through plants that can tolerate high concentrations of this mineral in strengths greater than the animals that eat them can withstand. Most of this type of poisoning has occurred on Wyoming ranges, although certain amounts of it have been found in Nevada as well. Possibly selenium was one of the ingredients of the alkalis first reported as poisonous in the westward drives nearly a century ago, though modern experience indicates that like arsenic, selenium has a cumulative effect in poisoning rather than a sudden reaction.

The best practices for the control of plant poisoning include keeping the flocks off summer grazing grounds before the normal grasses are well started; allowing the sheep to drift rather than grazing them compactly in areas afflicted with poisonous plants; changing bedgrounds frequently so that the surrounding range cannot become stripped of the regular forage plants; keeping the flock well supplied with salt; and making certain that flocks enter poisonous plant areas only when their digestive systems are full. Avoidance of such regions is much more simple than dosage of the flock, which is ineffective with most poisonous plants.

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The story of sheep disease in the United States has often involved economic disaster for the individual grower, but as organized efforts have been applied, the results on a national scale have been gratifying. The solution of the problems has been found in the sciences of entomology, parasitology, pathology, pharmacology, and toxicology. The application of research and knowledge in these fields has been made by the veterinarian and the sanitary officer.

*Salt Desert passed! As night closed down  
We camped beside our band.  
Fresh grass ahead, the Humboldt pools—  
It seemed a promised land!  
But nearby hills re-echoed sounds  
That terrified our stock  
And, ere dawn came, the wolves had maimed  
The choicest of our flock!*

—A. N. Ward, "Across the California Trail"

♦ 21 ♦

## Predatory Animals

**N**O DOMESTIC animal is so timid and defenseless as the sheep. It has survived under natural conditions because it has inhabited a relatively inaccessible terrain, but under human service it requires more attention, care, and protection than any of the other domestic mammals. Always it has fallen easy prey to the wolf, coyote, dog, bobcat, and mountain lion, while at lambing time the young have often undergone attacks by eagles. Sheep usually suffer the greatest destruction from canine predators, with secondary losses from the feline groups. The worst setbacks, however, come from dogs rather than wolves, and laws to protect the wool-grower have been controversial ever since colonial days.

\* \* \*

Wild animals destructive to sheep have been largely exterminated east of the Mississippi River, so it is now difficult to realize the damage they once did to colonial flocks. Along the Atlantic Coast the native grasses were so scanty that pastured animals were forced to spread out over wide areas. When enough milch cattle and oxen had accumulated for local supply, the sheep and beef cattle were forced to range away from the settlements. This exposed the flocks to the attacks of wild animals, and in some of the southern colonies checked

the rate of multiplication considerably. The wolves of the Atlantic Coast were of the "timber" variety—great gaunt masses of hunger that were more than a match for the settlers' dogs.

### WOLVES

The first domestic sheep in the British colonies did not flourish, and Carman<sup>1</sup> repeats a contemporaneous opinion that wolves were the most significant factor in holding them down. In 1632 the Grand Assembly of Virginia, meeting in Jamestown, passed a wolf control law, and offered rewards for their extermination. By 1697, this colonial government had agreed to pay three hundred pounds of tobacco for each wolf killed. Wolves persisted in the South Carolina mountains until the middle of the last century, and Simpson<sup>2</sup> ranked them next to dogs in the amount of destruction.

In New England the hiring of "sheep-herds" reduced ovine losses, while the practice of folding village flocks nightly on tillable fields, to conserve fertilizer, increased their protection. Some of the early sheep owners purchased islands in rivers, or off the coast, exterminated

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<sup>1</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 21.

<sup>2</sup> Randall, *Sheep Husbandry*, 59 and 64, quotes R. F. Simpson of Pendleton, South Carolina.

the wolves and lynxes, and then transferred their flocks to the new locations. This practice continued until all suitable islands were occupied.

More than one report of Sabbath attacks by wolves on the colonists' flocks appears on the New England records, and a suspicion existed that several shepherds believed a good wolf story was ample alibi for non-attendance at "meetin'."

In November, 1630, the general court of the Massachusetts Bay Colony ordered that any person who killed a wolf be paid from the treasury a penny for each cow or horse on the plantations that lay out of Boston, and a farthing for each sheep or pig. Increase in the total number of livestock augmented the bounty automatically, and stimulated further wolf destruction.

In 1644, Newbury offered a bounty of ten shillings for each wolf killed with hounds, and five shillings for each one trapped or otherwise destroyed—provided the constable was notified and the heads were nailed up at the meeting house. The same year Hampton declared that townsmen who nailed the head of a wolf they had killed to the "little red oak tree at the northeast end of the meeting house, shall have ten shillings a wolf for their paynes." Four years later, the General Court provided that Englishmen were to be paid thirty shillings for each wolf killed, and Indians paid twenty. Haverhill introduced sheep in 1684, but its flocks were so ravaged that it offered a forty shilling bounty for each wolf taken within the town.

Guns and traps were used to clear the forests near Amesbury, and an ingenious device was invented to catch the wolves by hooks. Four good-sized fish hooks were attached to a strong cord and bound together with heavy thread so that each stood at approximately right angles to the one next to it. The whole was then wrapped in wool and dipped repeatedly

into melted tallow until the bait was about the size of an egg. This was laid near the carcass of a dead animal, which served as a lure, and when the victim swallowed the ball he was thoroughly hooked.

Wolves were a serious problem in the pioneer Piscataqua plantations north of Hampton, and in the frontier villages on the Connecticut River. Their ravages continued as far north as the Canadian border until well after the American Revolution. Experiences in the other New England colonies were similar to those of Massachusetts.

New Amsterdam's early settlements up the Hudson were restricted in sheep culture by wolves and dogs. In several towns the losses were so great that flocks had to be abandoned, while the fact that there were fewer than a score of sheep in the colony in 1643 was blamed on these predators. Van der Donck<sup>3</sup> believed that the inability to protect sheep was due to scarcity of men. Hence New York and Pennsylvania colonies adopted a bounty system for wolf destruction. Up to the Civil War, New York still offered ten dollars for each full grown wolf and five dollars for each "wolf's whelp."<sup>4</sup>

#### COYOTES

In the Southwest the "wolf" was a coyote, lesser in size and power than the great Spanish sheep dog. During the late 1830's Gregg stated that flocks in New Mexico were "well guarded during the night by watchful and sagacious dogs, against prowling wolves or other animals of prey."<sup>5</sup> Relatively few *pastores* had these massive animals, and the majority used their crossbred progeny from mongrel curs of the Mexican cities.

<sup>3</sup> Van der Donck, "Description of New Netherlands," 166.

<sup>4</sup> Randall, *Sheep Husbandry*, 64.

<sup>5</sup> Gregg, *Commerce of the Prairies*, Part I, 322.

Many Spanish owners corralled their flocks at night to protect against mountain lions and bears.

Emigrants from the Atlantic Coast did not encounter the coyote or "prairie wolf" until they reached western Ohio. The principal damage up to that point had come from the timber wolf, and the greatest losses occurred in the eastern Ohio counties. Travelers around 1807 to 1815 reported serious damage, and some of the first Merino breeders, notably Seth Adams and Thomas Rotch, underwent severe financial setbacks. To protect against wolves, Bezaleel Wells required his shepherds, in the vicinity of Canton and Steubenville, Ohio, to live in an oxcart near which the flock could bed down.<sup>6</sup>

On the prairie, in Kentucky, Indiana, and Illinois, the problem was also vexing. Faux<sup>7</sup> visited Rapp's colony at New Harmony, Indiana, in 1818, and commented on the necessity of folding the flocks each night to prevent attacks of wolves. When he visited Flower's flock on the English Prairie in Illinois, the shepherd told him that wolves had killed fifty sheep the preceding day.

In 1820 Woods,<sup>8</sup> and in 1821 Welby,<sup>9</sup> noted the night-folding practice at the English Prairie. Woods suggested that American flocks were largely limited to twenty head due to the wolf menace. He reported important losses at Birk's Prairie a short time before his visit.

Carman<sup>10</sup> states that sheep were not introduced into Wisconsin before 1837 because "wolves were so numerous and destructive as to discourage it." These were timber wolves, but by 1870 they had been exterminated in the southern and western areas of the state.

Most early records made no distinction between the great timber wolf in the forested areas (or the plains type known as the gray wolf west of the Missouri), and the coyote. The fact that there were

two kinds was either unnoticed or the difference was considered unimportant. However, the greatest damage east of the Mississippi came from the timber wolf, and west of it from the coyote.

#### WOLVES ON THE SHEEP TRAILS

When overland sheep trailing began during the 1850's there was constant harassment from wolves, especially after the Missouri was crossed. On June 12, 1853, the fourth day west of that river, Dr. Flint reported "some wolves around, but they gave us no trouble."<sup>11</sup> Two days later he said that Dan Hendrickson "gave chase to a wolf, but it proved more than a match for his horse and dog." On the twentieth, "a big wolf snapped out one of the sheep in the lead." "Large white wolves" were met on July 2, and although they were "numerous and bold," it was difficult to get an unobscured aim at them.

The next day he recorded that "wolves were troublesome last night, but we kept them off so that they did not pick up a sheep. Took several shots at them but probably did not hit for, if we had, the pack would have had a grand howl and killed the wounded one, as is their way of doing up the wounded for a meal." On Independence Day, "a large gray wolf beat the boys and got away with a sheep for its Fourth." On the ninth the wolves were still "howling about us,"

<sup>6</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 529.

<sup>7</sup> Faux, *Memorable Days in America, Being a Journal of a Tour to the United States*, Part I, 250, 258.

<sup>8</sup> Woods, *Two Years Residence in the Settlements on the English Prairie in Illinois, Country of the United States*, 284, 288.

<sup>9</sup> Adlard Welby, *A Visit to North America and the English Settlements in Illinois* (Vol. 12, *Early Western Travels*, edited by R. G. Thwaites), 259.

<sup>10</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 639.

<sup>11</sup> Flint, *Diary*, 26.

while on the tenth one of his party dispatched a single wolf out of a pack of twelve or fifteen that was "hanging around" the flock near Chimney Rock on the North Platte.

Most of the "wolves" Flint encountered up to this point were probably coyotes, although it is possible that those mentioned on June 20, July 2, and July 4 may have been the big gray wolves then found on the plains. Coyotes were bothersome on the Continental Divide on August 13, but after that bears, Indian dogs, and Indians themselves caused the chief disturbance.

#### WOLVES IN THE OREGON COUNTRY

Early settlements in Oregon Territory suffered severely. Dr. Whitman, the Reverend Jason Lee, and Dr. McLoughlin all made numerous references to the forays of wolves. At the twelve-hundred acre Cowlitz Farm of the Hudson's Bay Company, about forty-five miles above the mouth of the Cowlitz River, raids by wolves on sheep and other livestock took particularly heavy toll. Captain Wilkes<sup>12</sup> stated that it was inadvisable to raise sheep on a small scale at Vancouver, Cowlitz, and Nisqually, because of the necessity of constant herding to guard against the attacks of these animals. Settlers at Clatsop and in the Willamette Valley were so annoyed by large gray wolves that they called the famous "Wolf Meeting" on "the second Monday of March," 1843. Subscriptions were made for flock and farm protection, and bounties were authorized. This meeting really initiated provisional government in Oregon. In 1844, hunting parties were organized to exterminate wolves and coyotes, with some attention to bobcats and "panthers."

#### THE WESTERN RANGE

As sheep and cattle pressed into the range country, the wolf problem acquired

an importance almost equal to the Indian question. In 1860 Dr. Hayden stated that sheep would thrive especially well on the high plains and in the foothills of the Rockies, "if properly cared for so far as grazing is concerned, though the great numbers of wolves with which the country abounds would present a formidable objection."<sup>13</sup>

Throughout the bonanza days of the ranching industry, up to the winter of 1886-87, most of the wolf extermination was handled by the ranchers, either through direct wolf hunts, or by bounties or salaries paid to hunters and trappers. The hunts held considerable glamour. Following the Civil War many adventurous young Britshers, frequently younger sons in their families, entered the ranching business, and gave vent to their taste for rural sports by maintaining packs of hounds and conducting wolf and coyote hunts after the pattern of fox hunts in their native Isles. In northeastern Colorado, eastern Wyoming, the Little Missouri region of the Dakotas, and the Deer Lodge and Gallatin Valleys of Montana, were located groups of "remittance" men and their friends who preserved the tradition of "hounds and the horn." The famous Cheyenne Club, until its destruction by fire, was the social center for this group, and strenuous coyote hunts "in the manner" were staged all over the area.

The bounty system was only moderately effective in reducing the wolf population. Ranchers who wished to rid their ranges completely had to wipe out the final animals themselves. Many used dynamite to clear the last dens. Observ-

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<sup>12</sup> Captain Charles Wilkes, *Diary of Wilkes in the Northwest*, Washington Historical Quarterly, 27, No. 2 (April, 1926) :129-44.

<sup>13</sup> Dr. Francis V. Hayden, "Contribution to the Ethnography and Philology of the Missouri Valley," *Proceedings American Philosophical Society*, Vol. 12, Part III:1863, 385.

ers with field glasses would be stationed on hills, where they could spot she-wolves and mark the spots of which they disappeared. The next day they would take a new station where they could follow the trail farther. When the den was discovered, the old wolves would be "holed in" and a small charge of dynamite exploded well inside the opening. This method was not sportsmanlike, but it was effective for the harassed flockmaster.<sup>14</sup>

#### FEDERAL WOLF CONTROL

After 1915, federal hunters, trappers, and poisoners reduced wolves rapidly. When the federal staff was established in Wyoming that year, more than a thousand adult gray wolves could be identified individually in the state, doing damage exceeding a million dollars annually. But by 1928 only five were left outside of Yellowstone Park. Many of the wolves destroyed were such notorious killers that they had been christened with appropriate names by the stockmen of the area. "Red Flash," an unusually large wolf with glossy, red-tipped fur, lost his life when a government hunter overtook him on skis. "Three-Toes" was a she-wolf that killed fifty head of cattle annually for four years, to say nothing of uncounted sheep, antelope, and deer. She was so destructive that she even supported an alias, "the \$10,000 Split Rock Wolf." Several uniquely colored wolves became famous — a blue one destroyed by federal hunter Ed Stearns, and four blacks in a pack of fifteen wolves that hunted near Big Piney.

Other famous wolves were "Scarface," "Cushion Foot," "Five Toes," "Big Foot," "Two Toes," the "Sheridan Wolves," and "Old Angora." The latter was an extraordinarily large white wolf, possessed of a long white coat, faded by

age. His teeth were worn to the gums and he killed by sheer muscular strength. Once a Jackson Hole dude rancher surprised "Old Angora," but dropped to the ground to give an eastern guest an "open-and-shut" shot. For the instant necessary for escape the guest failed to pull the trigger, believing he saw a ghost. "Old Angora" was especially destructive since he sired numerous outlaw killers.<sup>15</sup>

Most notorious of all predators in the Wyoming-Dakota region was the "Custer" wolf which was king of the outlaws throughout this area for nine years. He destroyed over twenty-five thousand dollars' worth of cattle and large numbers of sheep and game. Rewards of five hundred dollars were frequently offered for him, but he eluded pursuers and escaped the most cunning traps and poison sets. After his mate was killed he continued his depredations alone, although he was attended by two coyotes which ran near him, feeding on his prey. In March, 1920, a federal hunter took up his trail with orders not to quit until the "Custer" wolf was killed. For six months the hunter patiently followed, shooting his coyote associates early in the period. Finally he was caught in a trap smeared with scent material from a female wolf and provided with a long chain and drag hook. Within 150 yards of the point where he was caught, the swivel on the end of the chain snapped, and the wolf ran three miles with the heavy trap on his foot before the hunter could overtake and shoot him.

An interesting step in wolf control was the establishment of a border patrol in Texas, Arizona, and New Mexico in

<sup>14</sup> Ogilvy, Interview, January 20, 1944.

<sup>15</sup> Albert M. Day and Almer P. Nelson, "*Co-operative Wild Life Control and Conservation in Wyoming*, 4-6.

1923, to prevent both red and gray wolves from immigrating from Old Mexico. Poison and traps soon reduced the numbers remaining in these states to fewer than fifty head, although complaints of additional animals crossing the line occurred periodically.

Representative annual "takes" of wolves, excluding coyotes, are recorded in the *Annual Reports* of the Chief of the Biological Survey (now Fish and Wildlife Service) :

1916 .....	424	1935 .....	1,332
1918 .....	849	1936 .....	1,115
1919 .....	584	1937 .....	1,007
1922 .....	587	1939 .....	1,214
1923 .....	599	1941 .....	1,367
1933 .....	1,227	1944 .....	1,170

#### ERADICATING COYOTES

Coyotes have been, and still are, the principal wild enemies of the sheep business. Damage from them exceeds losses from all other wild animals combined. Sly and intelligent, they can more nearly outguess the sheepherder than any creature other than the dog. Whitney comments on them as a sheepman's problem, and describes their method of attack:

No matter how many coyotes are killed they never cease coming on, and sometimes four or five a week are destroyed. They are especially plentiful at lambing time in March, and although they will not then attack full-grown sheep unless they are disabled and separated from the flocks, they are particularly partial to young lambs. The mother will face about toward the coyote, and as soon as she is distracted off a little the coyote will dash in and carry off the lamb. . . . If left to his own free action, (the coyote) will destroy six or a dozen lambs to one of his eating.<sup>16</sup>

Keeping the coyote beyond the frontier was no easy task. Farm dogs were able to deter its attacks, but often they became so friendly they would race back and forth after each other, and occasionally would wrestle like a pair of puppies.<sup>17</sup>

Westward migrants found prairie

wolves (coyotes) destroying flocks along the Missouri west of St. Louis, but as the river bottom settled they were gradually pushed northward. By the early Civil War, they had deserted Missouri for Iowa, and thereafter the advancing frontier forced them northwestward into Minnesota and the Dakotas. From eastern Kansas and the Platte Valley in Nebraska, they were driven westward or northwestward into the Sand Hills, the Niobrara Valley, and western Dakota. Finally their eradication became a question of clearing the range.

Yet coyotes were able to learn the pioneer farmer's routine, and often dwelt safely on his property for a number of years—pillaging his lambing sheds, pig pens, chicken houses, and even his cow lots. A third of a century ago the writer was visiting a purebred livestock farm near Hartington, Nebraska, when a large coyote raided the lambing fold and was cornered under a shed by the owner's collies. The animal could not escape, but the dogs did not dare attack in the limited space beneath. The ground was so uneven it was impossible to get a clear shot. Finally a Berkshire boar was turned in, and after a brief set-to the coyote deemed it the better part of valor to brave the dogs. Once in the open they dispatched him promptly.

Ranchers have frequently reared coyotes among litters from their shepherd bitches or by hand. Usually such "domesticated" whelps seem quite friendly and intelligent, and in some cases have been trained to perform minor duties around the ranch. They never prove trustworthy though, and the majority revert to type

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<sup>16</sup> Whitney, *Reminiscences of a Sportsman*, 276-77.

<sup>17</sup> G. Stanton Smith, *When the Wildwood Was in Flower*, 24-25.

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at the first breeding season. Whitney tells of a coyote he reared at the mammae of his collie bitch:

As he grew older and larger he ran freely about with the collie dogs, and even rendered aid in driving the sheep about with them, and in one notable case where a large flock was driven some twenty miles to another range, indicated considerable intelligence; but . . . that very night upon arrival at the destination he signalized himself by visiting a neighbor's ranch and extinguishing the life of sixteen fat turkeys. Not being immediately detected as the destroyer, he supplemented his exploit the following night by slaying nearly an additional score. This escapade led to his discovery and his being chained up as an altogether too expensive sheepherder, and his ignominious return with a collar and chain, and a free ride in a sheep wagon.<sup>18</sup>

The writer has seen many coyotes that were raised as ranch pets, but even though they were occasionally taught to respect the rights of lambs, pigs, and poultry at ranch headquarters, they never recognized them afield.

#### EXTENT OF COYOTE DAMAGE

A single coyote trapped near Gillette, Wyoming, in 1926, was identified as having killed more than five hundred dollars' worth of ewes and lambs in one year. Individual flockmasters have often indicated that the destruction of a single coyote would be worth more than a hundred dollars to them.<sup>19</sup> Their rate of reproduction is very rapid, often 200 to 300 per cent annually.<sup>20</sup> Near Kanosh, Utah, a federal hunter trapped a female coyote carrying seventeen unborn young,<sup>21</sup> while seventeen living whelps were found in one litter in the San Luis Valley of Colorado, and another of the same size was discovered in northeastern Colorado.<sup>22</sup> A den of sixteen was located in Jefferson County, Oklahoma, and records of fourteen, thirteen, and twelve whelps appear frequently. In April, 1919, Harold Haeker of the Biological Survey found a coyote den in Modoc County, California, that contained a litter of nine bitch pups with no males.<sup>23</sup>

Coyotes range over extensive areas in their hunting, and lamb losses are not always blamable on those denning closest at hand. In 1932 the Biological Survey tagged and released twenty-four coyotes, recovering seven later.<sup>24</sup> Four were caught within five months in the immediate vicinity of the place where they were tagged. One was recaptured fifty-five miles away eight months after release; and two were taken thirteen months later—one only ten miles away, the other more than one hundred miles distant.

Coyotes have been serious factors in the spread of rabies. In Winnemucca, Nevada, in 1915, a single coyote caused the loss of twenty-seven steers in a feed-lot. Rabies was contemporaneously prevalent in Washington, Oregon, California, Nevada, Idaho, and Utah. During this outbreak, sheep and cattle valued at a half-million dollars<sup>25</sup> were lost in Nevada alone from the attacks of rabid animals, mostly coyotes. In 1922, a similar outbreak in seven counties in Washington required the killing, trapping, or poisoning of eighteen hundred coyotes. Sporadic outbreaks have occurred since then, but quarantine lines and complete destruction of coyotes within the circumscribed areas have maintained effective controls.

Coyotes are most destructive during

<sup>18</sup> Whitney, *Reminiscences of a Sportsman*, 273-74.

<sup>19</sup> Day and Nelson, *Cooperative Wild Life Control and Conservation in Wyoming*, 7.

<sup>20</sup> Frank C. Clarke, "Facts About, and Experiences With, Coyotes," *The National Wool Grower*, 30, No. 5 (May, 1940) :20.

<sup>21</sup> Paul G. Redington, *Report of the Chief of the Bureau of Biological Survey*, 1933, 14.

<sup>22</sup> J. N. Darling, *Report of the Chief of the Bureau of Biological Survey*, 1935, 47.

<sup>23</sup> *The California Wool Grower*, 14, No. 21 (May 23, 1939) :8.

<sup>24</sup> Redington, *Report of the Chief of the Bureau of Biological Survey*, 1933, 13-14.

<sup>25</sup> E. W. Nelson, *Report of the Chief of the Bureau of Biological Survey*, 1919, 3.

drouths. Rodents and game on which they prey are materially reduced, and their attacks on domestic flocks and herds mount. Before the drouth of 1934-36, the annual kill of coyotes by the Biological Survey was not quite fifty thousand head. But in 1937, after the drouth broke, more than eighty thousand head were taken, and two years later, ninety-three thousand.

#### COYOTE CONTROL PROGRAMS

Of all meat-eating wild species, coyotes alone seem to be able to increase under the predator control programs. The "take" in 1916 by the Biological Survey was only about 12,000 coyotes, while 110,000 were caught in 1941, a quarter of a century later. In part the discrepancy in figures is due to lack of facilities at the earlier date, but more important is the clash of authority among federal agencies. Early control of the public lands was loose enough that stock owners could take measures in their own behalf. But when the various bureaus and departments controlling these public lands began to expand their powers, they soon were in conflict with each other, and the livestock owner often came out last. One department of the government permitted sheltered havens to develop in which the predators could rear their young, and from which they could attack flocks and herds. Another government service waited outside to help the stockmen protect his flocks and herds. Wildlife societies, game enthusiasts, and conservationists backed the first group, and sheepmen and cattlemen suffered.

Entirely apart from idealism is the question of relative costs. Destruction of predators permits expansion of the grazing species of wildlife and a consequent reduction in the land available to sheep and cattle. Somewhere there exists a level at which interference with grass

for domestic livestock and loss of lambs and calves assumes a minimum. But so far there has been little opportunity to determine this level experimentally, and the questions have been answered by political pressure.

In part the increase in coyotes is due to their ingenuity and fecundity, but some degree of it results from nullification of controls through the jealous competition of various authorities. Typical, though not involving a privately owned flock, was an instance just preceding World War II at the Federal Sheep and Wool Experiment Station at Fort Wingate, New Mexico. The land was under the Indian Service, the research under the Bureau of Animal Industry. Coyotes killed some especially important primitive-type Navajo ewes, which had been obtained only after long search. These were so near the early type bred by the Indians seventy-five years ago that they were being used to re-establish the breed.

The Fish and Wildlife Service was requested to send a hunter to destroy the coyotes, but it first had to gain permission from the Indian Service. After a week's delay, during which more of the valuable sheep were killed, permission was granted to trap the coyotes with a "non-cruel" type of trap, a sort of noose. Baiting such a trap to lure coyotes away from live sheep proved impossible. It appeared that the entire flock might be destroyed, while discussion with the Indian Service continued. Fortunately, an irresponsible private hunter, in violation of all regulations, killed the coyotes while the authorities were still at stalemate and the sheep being destroyed.

The foregoing is, of course, an individual instance of numerous conflicts of authority from which the predators gain. Meanwhile the various bureaus fight for prestige, while the "tax-paying sheepman

foots the bill, feeds the coyotes, and pays the bureaucrat's salaries."<sup>26</sup>

#### BEARS

Official opinions vary as to the amount of damage done to sheep by bears. Government authorities draw a sharp distinction between "stock-killing" bears and ordinary bears, which most stock owners consider highly theoretical. Federal regulations which permit the legal killing of predatory bears almost require that each bear confess stock killing before the owner may act. A government publication makes the following statement:

Predatory-animal hunters are directed to consider bears under ordinary circumstances as game animals, and have positive instructions to take every precaution not to kill any, except those known to be destructive to livestock. Unfortunately, unoffending bears are taken in traps set for other animals, thus making the number of bears killed during the year considerably larger than would otherwise be the case. The vast majority of bears are inoffensive so far as injury to stock is concerned, but occasional individuals in all parts of the range country become stock killers, some of them being notoriously cunning and destructive in their activities. Naturally such animals must be eliminated, and the more promptly this is done, the less prejudice there is likely to be created among stock growers against all bears."<sup>27</sup>

The forefathers regarded the situation differently. Down the Atlantic Coast from Maine to the Carolinas, especially in the mountain ranges, black bears were such marauders that they were destroyed as rapidly as possible. Numerous references to their depredations in the early settlements occur in western Massachusetts, New Hampshire, Vermont, New York, Pennsylvania, Virginia, North Carolina, and South Carolina. Emigrants also suffered from black bears through the eastern hill country of Ohio, and along the forested belt of Michigan and Wisconsin.

The fury of encounters with bears was felt by the Spanish colonists who met the grizzly in New Mexico and California.

Black and brown bears were present also, but the ferocity of the grizzlies made tales of their attacks part of the tradition of the sheep camp. During Spanish and Mexican rule many faithful herders were mauled and gashed by this powerful animal. Nordhoff tells how herders guarding their flocks in early California were protected at night:

The shepherd sleeps . . . in a *tepestra*. . . . The *tepestra* is to protect the shepherd himself against the attacks of grizzly bears which are still abundant in the mountains. . . . (It) is a platform about twelve feet high, built on stout poles solidly set into the ground. On this platform the shepherd sleeps, in the mountains, at the entrance to the corral; the grizzly bear cannot climb a pole, though he can get up a tree large enough to give his claws a hold. It is . . . not infrequent for a grizzly to stand up at the side of a *tepestra* at night and try to rouse the shepherd. But all the men are armed with guns which they carry day and night.<sup>28</sup>

Day and Nelson reported that numerous sheepherders were injured in Wyoming during 1916 to 1928:

On the Hayden National Forest, during the year of 1927, several bears went on a rampage, doing considerable damage to the herds of sheep, and seeming to take an especial delight in attacking sheepherders. One herder was severely bitten about the face, and escaped only after a thorough mauling. So great was the fear of these animals that it was almost impossible to keep herders in the country. The damage did not cease until three of these destructive bears had been taken by federal hunter Skinner. In another instance several bears near Big Piney developed into serious stock killers. . . . After doing great damage to herds, raiding several sheep camps, and attacking herders, they were dispatched by Biological Survey hunter Del Dearth.<sup>29</sup>

When American sheep were first introduced to Alaska in the seventies, the great Kodiak bear, which exceeds even the mammoth grizzly of the Sierras in

<sup>26</sup> Dr. S. W. McClure, Bliss, Idaho. Address before the National Wool Growers' Association, Salt Lake City, Utah, January 23, 1926.

<sup>27</sup> Nelson, *Report of the Chief of the Bureau of Biological Survey, 1919*, 2-3.

<sup>28</sup> Nordhoff, *California*, 235-36.

<sup>29</sup> Day and Nelson, *Cooperative Wild Life Control and Conservation in Wyoming*, 10-11.

FIG. 114 (*Right*) — John G. ("Jack") Edwards, prominent figure in Colorado cattle-sheep wars, and later Oregon breeder (pp. 533, 611). (From portrait by Sydnay Bell.)



FIG. 115 (*Below*) — Remains of two thousand sheep killed in cattle-sheep wars on Boulder Creek above Pinedale, Wyoming, in 1895, at a site near modern Scab Creek Ranger Station in Wyoming National Forest (p. 539). (United States Forest Service.)





FIG. 116a (*Above*)—Hybrid ram lamb sired by wild Bighorn at Z-T Ranch, Pitchfork, Wyoming. Such matings occur occasionally, but few lambs result.



FIG. 117a (*Above*)—Old type Navajo yearling ewe (p. 548). (Sheep Experimental Laboratory, Fort Wingate, New Mexico.)



FIG. 117b (*Right*)—Four-horned Navajo ram (p. 123). (Sheep Experimental Laboratory, Fort Wingate, New Mexico.)

size, proved a menace, though it normally relies on fish and game for food. Whitney hunted there in the nineties and worried about these massive ursines:

A conflict is now on between the sheepmen and the bears. The latter, evincing their taste for mutton in the waiting season for salmon—their main food—have aroused the former in defense, and the almost inevitable result will be extermination.<sup>30</sup>

In 1922 Nelson reported that a large grizzly south of Williams, Arizona, had been killing sheep and cattle each spring for eight or ten years. Bounties of one to five hundred dollars had been offered by stockmen for its capture. A federal hunter finally shot him, after the bear had driven off the dogs and was charging the man himself.<sup>31</sup> Stockmen located in the area estimated that during his last four years this bear killed between twenty-five and thirty thousand dollars' worth of sheep and cattle, and twice as much during his lifetime. As an individual predator he was one of the most destructive on record.

In 1930 the Chief of the Biological Survey apologized for yielding to stock-growers, who criticised slowness in removing predatory bears from the government ranges. He deplored the fact that the protection of innocent bears was not a simple matter,<sup>32</sup> but within three years he acknowledged the necessity of taking 245 stock-killing bears.<sup>33</sup> Since then representative years have seen the following fluctuations:

1935 .....	305	1939 .....	495
1936 .....	173	1941 .....	528
1937 .....	299	1944 .....	592

There have always been enough predatory bears to justify stockmen's complaints, though the *Natrona County (Wyoming) Tribune* reported June 14, 1903, that the worst sheep killer in the Salt Creek country, when inescapably caught in a bear trap, proved to be an Indian.

Bears sometimes return to settled country and learn to live in spite of farmers. In 1944 a wool grower, reporting on the spread of sheep in the cut-over timber districts of northern Minnesota, complained of "big black bears."

The bear situation comes to a crisis in the latter part of August, (and continues) through the month of October. One farmer lost twenty head out of fifty in one night, another lost twenty-eight in one night. Still another lost forty head over a period of two weeks. These are but a very few of the examples that I might cite. These bears are bold and will come right onto one's back porch and steal his meat. In one instance a bear literally threw a two-hundred pound pig over his shoulder and carried it two hundred yards before killing it. This was in broad daylight and was seen by two women who were in a yard nearby.<sup>34</sup>

From the sheepman's standpoint the bear problem is still far from settled.

#### MOUNTAIN LIONS

The mountain lion (cougar or puma) is an enemy of sheep that was first faced by *pastores* working for the Spaniards. Ranging through Texas, New Mexico, and northward across California, it not only harassed flocks but left enough scars on herders to testify to his viciousness when cornered. Mary Austin wrote of its depredations in California four to five decades ago:

Cougars have a superior cunning to creep into the flock unbeknown to the dogs . . . ; so if they manage not to stir the sheep and set the bell ringing to alarm the herder, they get away un-hurt with the kill. A cougar will hang about a flock for days, taking night after night a fresh wether of a hundred pounds weight, throwing it across his shoulder and carrying it miles to his young in the lair, with hardly so much as a dragging foot to mark his trail. It is chiefly by tracking them home or by poisoning the kill to which the beast returns, that the herder is

<sup>30</sup> Whitney, *Reminiscences of a Sportsman*, 46.

<sup>31</sup> Nelson, *Report of the Chief of the Bureau of Biological Survey*, 1922, 5.

<sup>32</sup> Redington, *Report of the Chief of the Bureau of Biological Survey*, 1930, 28.

<sup>33</sup> *Ibid.*, 1933, 14.

<sup>34</sup> *The Montana Wool Grower*, 18, No. 1 (January, 1944) :42.

avenged; for in the night . . . when the flock mills stupidly in its tracks with the cougar killing quietly in its midst, a gun is no sort of weapon to deal with such trouble. Jewett reports four of these lion-coated pirates visiting his corral in a single night, each jumping the four-board fence and making off with a well grown mutton; and on another occasion the loss of sixty grown sheep to the same enemy.<sup>35</sup>

A characteristic attack by a "bad" cougar occurred in Idaho in 1931.<sup>36</sup> That June, two thousand sheep belonging to one of the state's largest operators, John Archabal, were grazing in the valley of Crooked Creek, thirty miles northeast of Idaho City. From a tree overhead the flock, an unusually large mountain lion leaped into its midst, killing forty sheep before the herder and dogs could drive it away. The herder was unarmed, but immediately charged the beast with his staff, setting his dogs on it. The cougar turned on him with bared fangs, striking at him so that neither he nor the dogs dared approach closer. As they withdrew, the great cat continued with its slaughter. The herder then waved his arms and shouted to distract its attention, while the dogs approached with better team work. Gradually the cougar withdrew towards the woods, taking refuge in a convenient tree. This particular individual was a female, presumably the mate of a large male killed the preceding winter on the Casner Ranch between Lowman and Idaho City.

By contrast Nordhoff relates a story of the stupidity and cowardice in the species under other circumstances. A Santa Barbara shepherd chased a lion in broad daylight into an oak tree, but had no gun. So he removed his shirt, trousers, and hat, and placed them on sticks around the tree in sight of the animal. He then ran a mile to the house, got his gun, and on his return found the lion still in the tree—a ready target.<sup>37</sup>

The classic incident of a treed lion was presented at a meeting of the Ameri-

can National Livestock Association in El Paso in 1928. The federal hunter, Ben V. Lilly, was a highly religious man, punctilious and strict in his observance of the Sabbath. One Saturday night he treed a mountain lion just as it turned dark, requiring him to camp under the tree with his dogs, to hold it until daylight. The following morning he realized that it was Sunday, and that one should not labor on the Sabbath. So he and his dogs held the lion in the tree all that day and night, shooting it at dawn on Monday morning. He was so sincere that none of his irreverent listeners inquired whether twenty-four additional hours of watching involved more Sunday labor than shooting the lion.

Mountain lions cover the entire area from the Rocky Mountains to the Pacific, and from Canada to Mexico. While more numerous in the South, they are trapped or killed in all of the western sheep states. Depending on hounds to locate and tree the lions made the rate of reduction slow, but after World War I the introduction of oil of catnip as a lure increased the annual "take" materially. Typical kills of mountain lions under the cooperative federal and state predator control programs follow:

1916 .....	9	1935 .....	349
1918 .....	85	1936 .....	287
1919 .....	149	1937 .....	212
1922 .....	173	1939 .....	241
1923 .....	158	1941 .....	204
1933 .....	249	1944 .....	167

#### BOBCATS AND LYNXES

Bobcats are particularly destructive as they usually consume only the blood of their victims, and several lambs may be

<sup>35</sup> Austin, *The Flock*, 182-83. The "Jewett" to whom reference is made is Solomon W. Jewett, the famous Vermont and California breeder of French and American Merinos.

<sup>36</sup> *The Idaho Statesman*, Boise, Idaho, July 1, 1931.

<sup>37</sup> Nordhoff, *California for Health, Pleasure, and Residence*, 235.

killed before their appetites are satisfied. Normally they attack singly and silently, tear open the throats of their captives, and suck out the soft parts of the throat and the blood. They leave as silently as they come, and the herder may not learn of their visit until the following morning. But when caught redhanded, there is little for the shepherd to fear.

"Jean Baptiste," say I, "where did you get that splendid lynx skin in your cavate?"

"Eh, it was below Olancha, about moonrise, that he sprung on the fattest of my lambs. I gave him a crack with my staff, and the dogs did the rest."<sup>28</sup>

Bobcats and lynxes attacked flocks in all of the forested areas as the settlers pushed westward. Sometimes they were known as "panthers," or "painters," while in upstate New York and Vermont they were just plain "varmints." During the mating season, their blood-curdling screams chilled the spines of many frontier dwellers. Pigs and fowl suffered as much as sheep, but livestock were not as superstitious nor as badly frightened by "banshee" wails as pioneer wives and children. Total bobcats and lynxes destroyed by the Federal Government were as follows:

1916 .....	1,564	1935 .....	5,380
1918 .....	3,462	1936 .....	6,980
1919 .....	4,166	1937 .....	7,471
1922 .....	2,827	1939 .....	9,033
1923 .....	2,822	1941 .....	10,347
1933 .....	6,382	1944 .....	8,900

#### EAGLES

Reports of farm depredations by eagles appear in early records of the southern colonies, but since sheep were rather scarce the attacks were usually restricted to fowls, pigs, and an occasional calf or colt. Several of the early southwestern Catholic *padres* referred to losses from eagles, but again lambs do not seem to be included. It was only after numbers of sheep in the West became greater that attacks on lambs or ewes began. Now records exist from Texas to

Idaho and Washington, around the coastline, and up and down the mountains.

The best description of eagles' attacks on flocks has been left by J. Parker Whitney. A sportsman as well as a sheep rancher, his observations are broad-gauged and inclusive:

There are three classes of eagles that attack sheep; the bald headed, the large gray, and the golden or black. The latter is smaller than the first two, stretching from wing tips about five feet, while the first two stretch to an extent of six to eight feet.<sup>29</sup>

A simple method of protection in common use was thus described:

The great American bald eagle is . . . a destroyer of young lambs, but on appearance can generally be trapped by putting steel traps on elevated poles where the eagles alight to survey the situation and, although they often get away with a lamb or two, (they) are pretty sure to be trapped. An eagle will easily carry off a lamb a few pounds in weight and will often attack full grown sheep, almost invariably striking the latter at the back or side of the neck.<sup>30</sup>

Then followed an attack on his own flock, which detailed the damage that eagles can accomplish:

Three golden eagles lately attacked—acting in concert—a small flock of separated sheep, and before the herder could drive them away succeeded in seriously wounding half a dozen, three of which died the same day, and the balance within a week afterwards, either from the direct wounds or the almost invariable blood poisoning which seems to follow when struck by the talons of an eagle. . . . The method of attack is to fly over the retreating sheep, and from a height of about thirty feet make a swoop down at the neck of the sheep, and repeat such attacks until the sheep falls over, when the eagle descends and makes quick work in rending for his ravenous appetite.

In this case of the attack of the three eagles, their attacks were not confined to single sheep, so that half a dozen were made victims, although the eagles (which) were being followed and shot at by the herder, failed to secure one for eating. One of the sheep, which soon died, had a large piece of flesh and skin torn from its neck down to the shoulder blade, and its jugular vein cut, and quickly bled to death.

<sup>28</sup> Austin, *The Flock*, 176.

<sup>29</sup> Whitney, *Reminiscences of a Sportsman*, 278.

<sup>30</sup> *Ibid.*, 277-78.

The eagles flew away, upon being disturbed, to some neighboring trees, but were too wary to allow approach for shooting. . . . I have received notice of two more sheep being killed by eagles, which have been unusually plentiful this season (1905) and we have lately killed about fifteen.<sup>41</sup>

Losses of lambs and sheep from attacks by eagles vary seasonally with the number of eagles about and the availability of other prey. Most eagles realize that man is their enemy, and first attack animals not under human protection. Hence eagles are not a serious problem to the flockmaster except in extreme seasons, and are not regularly included in the federal predator-control program.

#### MONETARY DAMAGES FROM PREDATORS

Estimates of the damage done by predatory animals vary, according to the bias of the estimator, the information available, the particular period on which the estimates are based, and the comprehensiveness of the raw statistics. The Chief of the Biological Survey reported in 1918 that more than twenty million dollars' worth of livestock was destroyed by predatory animals<sup>42</sup> while a year later he estimated that the slaughter of thirty-two thousand predators saved five millions dollars' worth of livestock.<sup>43</sup> In 1923, the saving of domestic animals through predator control was presumed to average about six million dollars in value annually.<sup>44</sup>

On sheep alone, specific estimates are difficult to obtain. The Livestock Board of Utah in 1918 stated that the annual losses from predatory animals to flocks in the state totaled a half million sheep and four million pounds of wool. The same year the president of the New Mexico College of Agriculture announced that 165,000 sheep were lost through predators in his state.<sup>45</sup> In Mackenzie County, North Dakota, it was indicated that 65 per cent of the 1936 lamb crop was destroyed by predators.<sup>46</sup> During the grazing season of 1936, lasting



three to four months, the Forest Service reported the death of 78,404 sheep and goats by predators on the national forests. In 1934 and 1937 equal destruction occurred, while in 1938 nearly seventy thousand were killed. These losses were probably only a fraction of those occurring during the year, as losses during the lambing period are several times as great. A federal report says about individual incidents:

Previous to 1937, the largest sheep-raising outfit in Nevada reported annual losses of 8 to 10 per cent of its herds through coyote depredations, and these losses continued until a Bio-

<sup>41</sup> Whitney, *Reminiscences of a Sportsman*, 278-81.

<sup>42</sup> Nelson, *Report of the Chief of the Bureau of Biological Survey*, 1918, 1.

<sup>43</sup> *Ibid.*, 1919, 2.

<sup>44</sup> *Ibid.*, 1923, 4.

<sup>45</sup> *Ibid.*, 1918, 3.

<sup>46</sup> Ira N. Gabrielson, *Report of the Chief of the Bureau of Biological Survey*, 1936, 63.

logical Survey hunter was assigned to the area in the fall of 1937. . . . During the past year, an Arizona rancher lost 15 per cent of his sheep during a drive of twenty-five miles, and a ranching company of Battle Mountain, Nevada, reported losses of 25 to 35 per cent of the lamb crop from a band of five thousand sheep, all as a result of coyote depredations.<sup>4</sup>

It becomes obvious that national losses of sheep and lambs due to wild predators may easily exceed a million head a year, and in some years the figure may be doubled.

#### SALARIED HUNTERS VS. BOUNTIES

Practically every one of the English colonies in America developed a plan of local payment to eradicate wolves during the interval between 1630 and 1775. Thereafter, as new states and territories were formed, they turned to this system on precedent. Older states increased the size of payments to assure a final cleanup. By the close of the Civil War substantial rewards for wolf and coyote destruction were offered everywhere east of the Mississippi River, and in several states payments were made on bobcats and lynxes. These appropriations provided the chief encouragement as far west as the Missouri River, and the system proved especially effective as the land became occupied. Beyond the

Missouri, however, bounties were usually unsuccessful. The rapid rise in livestock population all through the high plain and mountain areas provided a substantial increase in food supplies for predators, and their numbers rose rapidly.

Bounties in this region stimulated considerable amateur and professional hunting. In general this resulted in shooting the most easily discovered predators or trapping the least wary. It set up a form of selection which preserved the most cunning and dangerous for further breeding. It also brought about the destruction of baby coyotes, wolves, bobcats, and cougars in numbers that tended to satisfy the immediate demands of the hunters, while it permitted the animals of breeding age to escape. Finally, complete destruction was not desired by fur seekers and professional hunters, as it reduced their potential income for the next year.

Under the bounty system certain frauds also developed. Pelts and furs, especially scalps, that were obtained in outside areas, were frequently offered in support of bounty claims in counties or states making high payments. Also the scalps of nonpredators were frequently represented to be wolves, coyotes, or bobcats, and bounties paid. This latter phase of the control problem became so bad that in 1909 the Biological Survey published a bulletin, *Key to Animals on Which Wolf and Coyote Bounties are Often Paid*, to guard states against fraudulent representations.

In the state of Washington, the operations of thieves illegally collecting bounties on bobcats were broken up. Several counties of the state were paying bounties of five dollars on bobcats, and the large numbers of skins being presented for payments led one county official to make inquiries of the Biological Survey hunter, whose ordinary catch . . . was not more than four or



FIG. 118—Attack by Eagles.

<sup>4</sup> *Resumé of the Cooperative Predator and Rodent Control Work of the Bureau of Biological Survey, 1939*, 10-11.

five in three seasons. A check-up . . . followed on a claim presented on thirty-four bobcats, the claimant stating on affidavit that the animals had been taken in the vicinity within the past thirty days. Further investigations resulted in arrests, and it was developed that this claimant had already collected \$645 in bounties on 129 "bobcats," most of which were ocelots, small animals of the Southwest, and southern wildcats, also taken outside the state. . . . Similar bounty frauds in Kansas reported during this year in connection with coyote control involved payments of bounties by the state over a period of eighteen years aggregating . . . \$180,000. Arrest of four dishonest hunters, who had been operating over eighty counties, broke up the nefarious business, the men receiving penitentiary sentences.<sup>48</sup>

Experience had shown that bounty payments in the West never eradicated predators and normally failed even to restrict them after the first few years. Hence both ranchers and the Biological Survey gradually turned to the employment of salaried hunters. The most cunning wolves or coyotes always required more expense and effort to capture them than could be covered by the bounty and the sale of the pelt. In many cases it was necessary to follow trails for weeks and months to destroy the wariest and most dangerous, and only a salaried hunter could afford the time and effort. Moreover, a salaried hunter had no incentive to save breeding stock to provide future income, since he was not permitted to receive bounties and was required to turn all skins over to his employer. It was often impossible to finance a sufficiently large staff of hunters to render prompt relief when ranges were overrun by wolves, coyotes, and mountain lions. Dissatisfaction was frequently expressed by ranchers with the paid-hunter system in the early stages of its application. All flockmasters, however, learned to appreciate them in the cleanup stages of an antipredator campaign.

A few states tried both systems simultaneously. This normally proved satisfactory when first undertaken, but as

the predators were gradually brought under control, friction would develop between the bounty hunters and the salaried men. Usually the former would accuse the latter of destroying their livelihood. This assumption of a vested right in the hunting and trapping of predators, and the tendency to look on bounties as a means of making a living, always entered the picture under the bounty plan and proved a handicap.

#### POISONING CAMPAIGNS

The rate of destruction of predators has never been satisfactory for the flockmasters. Most of them have felt that generalized efforts were necessary in addition to the specific reductions brought about through hunting and trapping. Epidemics among coyotes and bobcats were considered a godsend, and poisoning a highly efficient practice. Riders of the range for many years inserted doses of strichnine in each carcass they passed, in the hope of killing a wolf or coyote. Hence it was quite natural for the Biological Survey to give consideration to poisoning methods.

Plans for a poisoning campaign were initiated in 1915. Measures of its effectiveness were difficult to establish, since the bodies of poisoned animals were usually not recovered and remained hidden in the dens or lairs. However, the efforts proved quite effective. In 1918 Nelson wrote:

Poisoning campaigns were conducted on a larger scale than ever before, and the results have been so satisfactory that they have received the strong support of cattle and sheep owners. Stockmen report that in the regions where poisoning campaigns have been conducted, the usual severe losses from predatory animals during the lambing season have been reduced materially, and in many cases practically eliminated. The largest poisoning operation in the West was carried on in the great sheep-growing

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<sup>48</sup> Redington, *Report of the Chief of the Bureau of Biological Survey*, 1930, 28-29.

region of southwestern Wyoming, where it covered about one-sixth of the state. Another large area in southern Colorado was systematically poisoned with excellent effect.<sup>49</sup>

By 1922, an average force of 266 hunters, trappers, and poisoners was operating under the supervision of the Survey, and thousands of stockmen were participating in the closely regulated distribution of "poison baits," during the organized drives. In addition to the dead animals counted, it was estimated that fifty thousand coyotes were killed whose carcasses were never found, as well as important numbers of wolves, bobcats, and mountain lions. Some 1,229,000 specially prepared poison baits were distributed by the Bureau. Two methods of placing the baits were employed—first the carcasses of dead sheep, cattle, horses, burros, or wild animals were studded with them; and, second, poison stations and lines were established along which small, fat baits containing meat or other alluring tidbits were scattered over nearby ground.

The principal poisoning operations were conducted in the winter, or around water holes during the summer. Most of the poison stations were established in the summer ranges, in the mountains, after the sheep and cattle had been removed to the lower altitudes. The hunters would follow the retiring live-stock and distribute their baits, which would remain potent until the succeeding spring, when the hunters would precede the returning flocks and herds and collect them again. Gradually perishable baits were developed, which would disintegrate after a relatively short exposure in the spring, making them innocuous if overlooked.

During a two-week period in 1922, two Utah hunters put out a poison line three hundred miles long in a great loop, and when they reached their starting point they found forty dead

coyotes.<sup>50</sup> Elsewhere three sheepherders located near a single poison station reported respectively that they had found "fourteen coyotes," "more than fifty," and "seventy-three." After the distribution of poisonous baits, one hundred dead coyotes were counted on the west side of the Ochoco National Forest near Prineville, Oregon. Seventy more were discovered on the east side of the same Forest near Mitchell.

One hunter in the Lemhi National Forest in Idaho, by using an automobile, maintained a poison line seven hundred miles long, which protected an area of five thousand square miles. The manager of a large Texas ranch reported putting out 12,400 baits by which a thousand coyotes were killed.<sup>51</sup> The Biological Survey estimated that in 1923 more than seventy-five thousand coyotes were killed by poisoning operations.

Considerable opposition from wildlife conservationists developed against the poisoning system, lest so-called "harmless" forms of life might be destroyed. Many of the officials of the Biological Survey were also prominent in wildlife activities, so these fears were based on apprehension rather than fact. But it often proved necessary to reassure critics. For the benefit of stockmen, hunters, trappers, campers, and so on, signs were always posted at poison stations and along poison lines.

To protect harmless wild animals it was essential to apply the knowledge of their general habits, and often of their specific behavior in particular localities. Frequently it was necessary to delay the placing of baits, or to avoid certain recesses, canyons, and mountain parks in order to protect birds, rodents, and small

<sup>49</sup> Nelson, *Report of the Chief of the Bureau of Biological Survey*, 1918, 2-3.

<sup>50</sup> *Ibid.*, 1922, 4-5.

<sup>51</sup> *Ibid.*

predators harmless to livestock. Careful and skilled operators, familiar with animal habits and habitats, early demonstrated that they could distribute poison effectively—without endangering other wildlife—under conditions where novices might wreak havoc.

By 1930 the reduction of predators had progressed sufficiently to warrant restriction in the distribution of poison. Only when the business depression of the early thirties resulted in reduced appropriations did the number of predators begin to rise again. Coyotes and bobcats increased in numbers during and after the drouth of 1934–36, so that poisoning routines had to be resumed.

#### FEDERAL AGENCIES FOR PREDATOR CONTROL

Eight hundred million acres were under federal control by the second decade of this century. Obviously, sheep, cattle, and horse interests felt it unfair for the government to collect public land fees and then subject their flocks and herds to the attacks of government-protected predators. Hence in 1914 Congress made a small appropriation for predatory animal control to investigate its possibilities.

This fund was placed with the Bureau of Biological Survey in the Department of Agriculture, which had been conducting research and giving instruction in wild animal control since its establishment in 1885. The first chief of this Bureau, Dr. C. Hart Merriam, served as the leading national authority in this field until his retirement in 1910. The control possibilities were successfully demonstrated through the use of the small funds made available, and a sizable appropriation of \$125,000 was made in 1915. Direct supervision of the Biological Survey was authorized. The language of the Act ordered destruction of wolves, coyotes, and other animals injurious to

agriculture and animal husbandry, both on national forests and the public domain. A special force of hunters and trappers was organized and the entire western area was divided into districts, with an inspector in charge of each, and an inspector-at-large over all.

Cooperative work with the states began just after World War I. Federal funds had been increased by that date and they were supplemented by state and county appropriations, as well as contributions from individual ranchers and livestock and farm associations. By 1939, the funds devoted to the cooperative predator and rodent control work totaled more than two million dollars, of which \$664,774 were appropriated by Congress for the Biological Survey; \$424,973 came from cooperating states and counties; and \$1,002,408 from cooperating associations and individuals.

Supervision and coordination of the actual field operations were vested in the Survey. The cooperators found by experience that best results came from this system. The work was done more expeditiously and efficiently by men trained in the control methods, and with the greatest safeguards to other wildlife. Agreements were not only drawn with the states and counties, but also with other federal agencies—such as the Forest Service, the Soil Conservation Service, and the Farm Security Administration, in the Department of Agriculture; and the Grazing Service, the Office of Indian Affairs, and Bureau of Reclamation, in the Department of Interior. One great advantage of the cooperative funds has been that they have checked overdoing the control work. Financial cooperation was always withdrawn when depredations were no longer acute.

On July 1, 1939, the Bureau of Biological Survey was transferred from the Department of Agriculture to the Department of the Interior. A year later

it was consolidated in the latter department with the Bureau of Fisheries to form the Fish and Wildlife Service.<sup>52</sup>

#### DOGS

Dogs have always been most difficult to combat because of their familiarity with human habits and their superior sagacity. Moreover, they are intermingled among farm flocks and have greater opportunity to cause damage than coyotes or wolves. Sheep losses from dogs are at least twice as great annually as from coyotes and gray wolves combined.

Most dogs attack between sunset and sunrise, under the cover of darkness. Some of them work singly, some in pairs, but even more frequently they work in groups. The smartest ones actually travel for miles in all directions, ignoring the flocks nearest at hand. It is difficult to catch them in the act of worrying sheep, as most of them realize they are committing forbidden acts. It is equally difficult to identify them when discovered, since they disappear instantly in the dark.

Some dogs kill only one or two in a flock, others cripple or destroy all. Many dogs neither bite nor wound the sheep but chase them until they die of overheating or exhaustion. It is apparently impossible to cure dogs of sheep-killing, and they are likely to corrupt other dogs to the same habit. Frequently the dog most highly esteemed by day is the most destructive at night—and sufficiently cunning that he hides the evidence of his guilt.

An Iowa cattle-dog known to the writer escaped detection for two or three years because he plunged into the stock watering tank on his own premises after each foray and washed off his victim's blood. Whitney reports an interesting anomaly based on his own observation:

While town and country dogs of all kinds will attack, mutilate, and prey upon sheep, even

their supposed best friend, the Collie, brought up with them, will do the same thing—not with his master's own flock, which he will guard and protect with his life, but the sheep belonging to a neighbor, which the Collie evidently considers beyond the pale of his protection.<sup>53</sup>

Depredations from dogs in the Atlantic Colonies occurred just as early as those from wolves. Very little progress was made with sheep in New Amsterdam, in the face of the severe canine ravages.<sup>54</sup> Just after the American Revolution, Judge Richard Peters of Belmont, six miles from Philadelphia, wrote General Washington rather discouragedly of sheep prospects. He commented on "too many (dogs) being uselessly kept by the wealthy, and not a few by poor people who do not feed them."<sup>55</sup>

An interesting custom in New England was the public hanging of dogs that were destructive nuisances, especially sheep-killing dogs. A noose was attached to a strong sapling that was bent over and the noose was then slipped around the dog's neck. The jerk, when the sapling was released, was normally sufficient to break the dog's neck, but in any event he was strangled. Lonely and isolated places were usually chosen, frequently the edge of a swamp, and numerous communities throughout Connecticut and Massachusetts had "hang dog swamps," even to one on Nantucket. The facial expression of guilty dogs, and their attempts to slink past one unobserved, led to the expression "hang-dog look," that persists to the present day.

New York, Ohio and Missouri, as well as other states, attempted to pass dog laws, but the combination of hunters, dog lovers, and opponents of additional

<sup>52</sup> *Resumé of the Cooperative Predator and Rodent Control Work*, 10-11.

<sup>53</sup> Whitney, *Reminiscences of a Sportsman*, 285.

<sup>54</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 24.

<sup>55</sup> *Ibid.*, 56.

taxes always nullified each effort. The United States Commissioner of Agriculture in 1863 made the following startling report:

The loss of sheep by dogs may be closely approximated. For a series of years in Ohio, the average of ascertained damages was \$111,548 per year, when sheep were very low in price. In 1863, the ascertained loss was \$144,658. The Secretary of the New York State Agricultural Society estimates the loss in New York in 1862 at fifty thousand sheep worth \$175,000. . . . It is a moderate assumption to take Ohio as a basis for the country, as Ohio had 4,448,229 sheep in 1862, the loyal states 23,000,000 in round numbers, and (as) the average loss of that state was \$40,764, the entire loss would be \$229,102 in killed; and a similar calculation upon the basis of 25,483 injured in Ohio would show a total of 142,219 maimed.<sup>56</sup>

The calculation was continued at an average value of five dollars per head, and the damage at about three-fifths of the live animal, to reach a loss in killed of \$1,545,510; in injured of \$429,657; and a total damage of \$1,975,167.

In New Mexico the Spanish-American element blocked legislation on the ground that the dog was the only domestic animal left on which they were not required to pay a tax or license fee.<sup>57</sup>

The dog problem was presented aptly by Sanders<sup>58</sup> in 1887, who pointed out that farmers could not kill dogs legally—under the principle that no one has the right to take the law into his own hands. Personal liability of the dog owner usually failed to result in compensation, for in nine cases out of ten the owner was as worthless as his dog ("two links from the same sausage"). In Wisconsin, in 1943, it was estimated that "neglected dogs" on the home front were annually causing livestock losses of approximately \$100,000.<sup>59</sup> Today the dog problem is still far from solution. The Extension Service of Iowa State College reported that 18,282 sheep were killed by dogs or wolves in 1944, and that counties paid out \$191,303 to reimburse the owners.

Some damage is caused by well-bred

dogs also. Gatlin reported the following instance from government records:

In 1928 when I was in charge of predatory animal control work in the Oklahoma-Arkansas district, we caught a female "German police" dog in western Arkansas that had killed in the neighborhood of two hundred dollars' worth of sheep. This particular bitch had a den and a litter of pups, and was killing the sheep to feed the pups. As soon as we caught the dog, we tied her up, took her license number, wrote to the state officials at Little Rock, Arkansas, and readily found out who the owner was. The dog was held in our possession until the owner had paid the damages; then the dog was released into his custody.<sup>60</sup>

#### DOG LAWS

Effective dog laws were not enacted until the Civil War. To be effective for the sheep owner, laws must recognize dogs as personal property, require their listing with the assessor, and license and tag them for identification. Provision must also be made for the capture and impounding of all unlicensed dogs running at large, their humane destruction after an appropriate period, or redemption by owners through licensing and the payment of fines. In some cases the sale of such dogs is permitted to responsible persons who are willing to license them.

Between sunset and sunrise (some states require an hour after sunrise), all dogs should be restrained within the house, in escape-proof pens, or under leash. Legal authority to kill all dogs—licensed or unlicensed—caught in the act of chasing, worrying, injuring, or

<sup>56</sup> Annual Report, United States Commissioner of Agriculture, 1863, 452.

<sup>57</sup> John C. Gatlin, Regional Director, Fish and Wild Life Service, United States Department of Interior, Albuquerque, New Mexico; Letter to Isabel Benson, Secretary, New Mexico Wool Growers' Association, Albuquerque, New Mexico, April 10, 1943.

<sup>58</sup> James H. Sanders, Editorial Note, *The Breeder's Gazette*, 11, No. 26 (June 30, 1887): 1010.

<sup>59</sup> *The Chicago Tribune*, January 3, 1944, 19.

<sup>60</sup> Gatlin, Letter to Isabel Benson, April 10, 1943.

killing sheep (or other farm animals or poultry) should be provided flockmasters, their agents, tenants, or employes, without any liability to the sheep owner. Legal retaliation for the dog owner should be denied when their charges are caught red-handed. In many states authority is granted to sheep owners, and their agents or employes, to kill any dog running at large on their enclosed lands. In some range states, where acreages are vast, it is not required that the lands be fenced.

While all states provide recourse for the sheep owner through suit against the dog owner, many states authorize funds from the dog licenses out of which damages may be paid. The principle is good as far as it goes, but it falls short of the mark. Sanders wrote:

If an owner had desired to convert his sheep into money he would have sent them to a butcher. He needs them on his farm; their presence is necessary to his business; their thrift is the measure of their profit. He does not wish to sell them at their simple value, and he cannot afford that they be chased, worried, and maimed.<sup>41</sup>

Over the years the effectiveness of dog laws has varied with the importance of the sheep industry to a state and the attitude of its dog owners. In New England, the towns drew up the first dog laws, but in the South and Midwest, the county became the enforcing unit. In some of the range states, the county proved to be too unwieldy an area. Wyoming, for example, created "dog-control" districts inside a county, after filing with the county commissioners a petition signed by the majority of land owners inside the boundaries of the proposed district. Dog license fees from such districts, were paid to the county commissioners to hold in a separate fund, and losses within the district were paid from that fund.

Such a program of action was not obtained easily. In California, for exam-

ple, the first attempts at dog control began nearly a century ago; yet the first county-wide or state-wide dog law was not adopted until 1921, when an optional law was set up that proved ineffective.

Then in 1927, the California Wool Growers' Association made an exhaustive study of dog laws in other states. . . . At the State Legislature in 1927, it attempted to . . . (license) all dogs on a state-wide basis; however, in the large counties where there are few sheep or little interest in such legislation, there resulted a compromise placing said enforcement of licensing on an optional county-wide basis. The first county to avail itself of the new legislation was Sonoma. There a fight developed between poultrymen and sheepmen; the Poultry Producers' Association claiming that fox terriers were needed on thousands of small poultry farms to keep down rats. The Wool Growers carried the case through to the Superior Court, finally winning, and . . . Sonoma County is now licensing eleven thousand dogs yearly in areas outside of incorporated cities and towns. . . . Some ten other, out of California's fifty-eight counties, now have optional county-wide ordinances and other counties are rapidly availing themselves of the provisions of the State Dog Law.<sup>42</sup>

When sheep losses from dogs occur in most states, the flockmaster reports the attack and the county or state in turn sues the dog owner to collect what has been paid out, plus the court costs. Virginia, California, and Alabama, for example, authorize double damages, and Maine triple damages, in the suits against the dog owner. Louisiana is the extreme case, where ten times the damages may be recovered legally.

A few interesting quirks exist in the various laws. Most states hold dog owners both jointly and individually liable in case dogs belonging to different owners participate in a particular sheep killing. In the South many dog laws are not state-wide. Alabama requires dog owners, in some counties only, to confine their dogs constantly to their own premises,

<sup>41</sup> Sanders, Editorial Note, *The Breeder's Gazette* (June 30, 1887), 1010.

<sup>42</sup> Wing, Letter, May 4, 1943.

unless the owner accompanies the dog or keeps it under direct control. Both North Carolina and South Carolina exempt several counties from the provisions of their state-wide dog laws, while in Massachusetts, Suffolk County is permitted to establish its own regulations and all other counties must obey the state law.

In Delaware it is unlawful for anyone except a policeman to place poison where it may easily be found and eaten by dogs. In Wisconsin a claimant for damages receives the full amount of his claims only when he furnishes conclusive evidence of the ownership of the dogs doing the damage, otherwise he receives only 80 per cent of his claim. In Maryland the owner of a sheep-killing dog is exempted from further liability if he kills the dog himself, otherwise he is liable to the county commissioners for the full amount of damages.

Any dog entering a field in Kentucky, unaccompanied by its owner, constitutes a "private nuisance" and the owner or tenant of the field may kill the dog while it is there. In Montana it is a misdemeanor, punishable by a fine not exceeding fifty dollars, to let a dog chase livestock on the open range or on prop-

erty of the Federal Government. North Dakota regards so-called "tame" wolves or coyotes as subject to the law, and forces the owner to bear the same responsibility if they worry or kill livestock. In Kansas, if the keeper of a dog disclaims ownership, he must kill it in the presence of the assessor or assume responsibility for the dog tax. In Virginia, any person destroying a dog involved in sheep killing must burn or bury its body.<sup>63</sup>

\* \* \*

Security for the flock may never be completely achieved. Continued appropriations must be made to control predators, federal departments and bureaus must harmonize conflicting regulations and must eliminate breeding grounds for predators which now develop as a result of administrative jealousies and red tape. Cooperative field work between federal and state predator control agencies must persist. Finally, state dog laws must be enacted all over the nation that will give full security to flock owners, if the industry is to prosper.

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<sup>63</sup>V. L. Simmons, "Sheep-Killing Dogs," *Farmers' Bulletin No. 1268*. Revision of February, 1941.

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*Will all this garden be made into beef and mutton pastures,  
and be delved by the hog-herd and ditcher's spade? . . .  
Another universal outpouring of lava, or the coming of a  
glacial period, could scarce wipe out the flowers and shrubs  
more effectually than do the sheep.*

—John Muir, "Journal," August, 1875

♦ 22 ♦

## The Public Lands

THE AMERICAN public domain has served successively as the hope of the pioneer, the bonanza of the land agent, the plaything of the politician, the loot of the despoiler, the sacred altar of the conservationist, and the preserve of bureaucrat. Public attitudes toward its utilization have run the gamut from total conversion into private ownership, to complete prohibitions of private use. For 150 years, administrative policies regarding federal lands have evolved tardily and contradictorily. Issues requiring policy decisions always arose two to ten years ahead of proper solutions, and hasty judgments complicated the situations. Most of the problems involving public lands developed from the tendency to "pass a law," without providing either protections or punishments which enforcement of its provisions would normally entail.

Yet the opportunity to obtain federal lands generated the westward movement. It accelerated the conquest of the continent, and nurtured the nation through the century and a half during which it grew from a struggling commonwealth into a world power. In the eastern hemisphere, the rising generation could fill only such niches as its predecessors were able to arrange. In the United States, myriads of opportunities lay concealed beneath the waving grasses of a bursting frontier.

\* \* \*

Federal titles to acreages on this continent arose with the exigencies of the American Revolution. None of the original thirteen states could assume its share in the new national debt while meeting its previous colonial obligations. Hence, cession to the Federal Government of unoccupied lands enabled the states to liquidate the pressing part of their indebtedness. Some of the charters issued by the British Crown stretched endlessly to the west, with conflicts of description and jurisdiction. The Continental Congress, therefore, on September 6, 1780, urged states with western lands to cede them to the Union, and a month later promised that the lands thus acquired would be "disposed of for the common benefit of the United States." New York gave a quit-claim almost immediately because of conflicts with Virginia, Massachusetts, and Connecticut, and the last state, Georgia, concurred in 1802.

Thereafter all new acquisitions of land became federally owned. In 1803 the Louisiana Purchase added nearly as much territory as was awarded under the peace treaty with Britain twenty years earlier, though the latter established our western boundaries on the Mississippi. Louisiana's frontiers on Canada, Florida, and Texas had been blurred by Napoleon, in the belief that American aggressiveness would harass his current enemies—Great Britain and Spain. In

1818 Britain accepted the forty-ninth parallel as the boundary between Canada and modern North Dakota.

The Florida problem was too complex for the King of Spain, so in 1819 he transferred "all the territories . . . eastward of the Mississippi, known by the name of East and West Florida," without defining limits. With the Annexation of Texas, the accession from Mexico, and the Gadsden Purchase, our Southwest was completed. Texas was already a sovereign country, so titles to her land were never held by the Federal Government, and she alone, of the trans-Mississippi commonwealths, escaped national control of her grasses. The last contribution to the public domain was made in 1846, when the Oregon question was settled.<sup>1</sup>

The original policy was to convert the lands to private use. In the federal conventions James Madison insisted that the western states ought never to submit to a union which degraded them from rank with the original thirteen, while Colonel George Mason of Virginia urged that the new states be subject to no unfavorable discrimination. Somewhat later Senator Benton pointed out that it was the policy of monarchies to multiply tenants, but that republics should multiply freeholders, and should pass the public lands cheaply and easily into the hands of the people.

Several schemes of converting the public lands to private ownership and use were tried in sequence—sale for revenue, homesteading, and reclassification after withdrawals for federal administration. Each of these systems followed public dissatisfactions. Part of the difficulty arose from the clash of state and federal authority; part from bad administration in Washington. The reasons underlying these dissatisfactions are essential in understanding the relations

of sheepmen with the public lands—dissatisfactions which the sheepmen acquired traditionally, though unconsciously, from generations of frontiersmen who believed themselves misunderstood and abused.

Early antipathies of stockmen toward federal control arose from difficulties in acquiring land. The first federal theory was that the Indians held title by prior occupation, and treaties were deemed necessary—even though imposed by force—before land could be made available for purchase. Many stockmen had flocks and herds in advance of the public land frontier, on peaceable terms with the Indians, but they were turned back by their own government. Indians never understood private land ownership. They believed the right to hunt and to fish, and even to grow crops, needed only to be defended against other peoples. Land could be *occupied* according to their ideas, but never *possessed* in the sense that they possessed blankets, tools, weapons, and food. This concept of the aborigines' hunter culture fitted admirably into the pastoral culture of the white stockman using public lands, and resulted in ideas of range rights entirely out of keeping with customs of the older states.

#### LAND SALES

Sales of land by the Federal Government should have united the diverging ideas. But before the land offices opened, large sales were made to development companies and land speculators, and the typical frontiersman felt he was being

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<sup>1</sup> Area added to the continental United States under each of these acquisitions was as follows: 1783, Treaty of Versailles, 571 million acres; 1803, Louisiana Purchase, 530 million acres; 1819, Florida purchase, 46 million acres; 1845, Annexation of Texas, 249 million acres; 1846, Oregon Boundary, 183 million acres; 1848, Treaty of Guadalupe Hidalgo, 389 million acres; 1853, Gadsden Purchase, 19 million acres.

gouged by eastern capital when he had to buy through these intermediaries. Just enough cases of injustice and discrimination existed to separate sharply the viewpoints of the West and the East, and these differences became more accentuated as the nineteenth century progressed.

The Harrison Land Act of 1800 provided for selling federal lands through public auction. Under this act the best lands sold at competitive prices while the remainder were listed at two dollars an acre, regardless of whether they were bottom lands, clay banks, or wooded slopes. At first the minimum acreage was a half-section, but in 1804 it was reduced to a quarter. One-fourth of the purchase price had to be paid within forty days, the next fourth before the end of two years, the third in three years, and the last in the fourth year.

The man who had sheep or cattle—or hogs in certain regions—had a better chance of meeting these payments than the nonlivestock operator, because he could use the unoccupied public lands. But Philadelphia, Baltimore, and New York were a long drive from that early Northwest, and costs to market soon offset the profit from cheap gains. Moreover, most stockmen on our early public lands committed their financial resources to the last penny. Few had reserves in money or credit. Hence defaulters at the second, third, and fourth payments increased progressively, and in the long run nearly a third of the contracted lands were given up.<sup>2</sup>

The East did not understand the psychology of this situation. Whole townships and counties existed in which every freeholder was directly indebted to the United States, and no more fertile means could have been devised to turn voters "ag'in the government." Justice as understood east of the Alleghenies seemed hollow indeed to men who lived

so close to Nature that a single false move, an unseasonable frost, a flood, or a drouth, could result in loss of home, financial failure, or starvation.

Relief for those indebted to the Federal Government arrived in 1820. By that date Congress discovered there was practically no net revenue from the sale of public lands—though almost twenty million acres had been sold at prices that exceeded \$2.45 per acre.<sup>3</sup> On April 24, Congress stopped sales on credit, the unit of purchase was dropped to eighty acres, and the minimum price was reduced from \$2.00 to \$1.25. Settlers in default were permitted to surrender any land for which they could not pay and obtain clear title to the remainder. This helped solve the question of indebtedness, but failed to overcome the feeling against "officialdom."

#### PRE-EMPTIONS

The next step in land acquisition, that led to later abuses was the practice of "pre-emptions." In 1801 Congress voted to relieve certain settlers that had purchased acreages from a land speculator who actually sold them land which lay outside the area sold him. As the settlers had bought their tracts in good faith, they were allowed to complete title at the minimum price of two dollars per acre, before the land auction opened. But the use of this privilege changed swiftly. Settlers progressed westward more rapidly than the land offices could serve them, usually because of delayed surveys. This led to legislation that permitted occupied land to be purchased at the minimum price ahead of the public sale—the practice that came to be known as "pre-emption."

<sup>2</sup> Fredric L. Paxson, *History of the American Frontier*, 222.

<sup>3</sup> Thomas Donaldson, *The Public Domain*, 203.

This pre-emption right brought about gross injustices, for it allowed initial trespasses to become perfected in valid titles. Many a waterhole on the western range was lost to a legitimate sheep or cattle raiser because a squatter "pre-empted" it, and many an aspiring "nestler" failed of his goal because some herder or cowboy "pre-empted" the water claim he needed. It was only natural for the man who lost to "cuss Washington."

#### HOMESTEADS

The climax of frontier land philosophy came in the Homestead Act of 1862, though its concepts arose much earlier. By 1820, leaders from the West were questioning whether the United States could ethically demand payments on federal acreages. "Western opinion was forming that no one but the occupier had a moral right to the public land."<sup>4</sup> Masses of evidence favoring the view that new settlers should receive grants in return for the services they rendered in opening the country were presented in successive Congresses by each new representative from the western states. The Homestead Law gave qualified persons the right to perfect title on 160 acres of "minimum" lands, or 80 acres of "double minimum" lands, after five years of residence and cultivation. It also permitted the conversion of a homestead entry to a "pre-emption" on payment of the regular minimum price. The Homestead Act was never of great help to the sheepman, except that it permitted title to a ranch headquarters.

#### FEDERAL OWNERSHIP OF LAND

Soon the question of the right of the Federal Government to retain any lands within the state borders was revived. Article IV, Section 3, of the Constitution permitted the Federal Government to control public land as long as the area

was inside a Territory, but each new state felt that this right ceased when the Territory was admitted to the Union. The failure to control all lands within a state handicapped stockmen and other settlers in establishing the state's sovereignty, solvency, and productivity.

In 1829, Senator Hendricks<sup>5</sup> of Indiana pointed out the inconsistency of seven states existing in which much of the soil belonged to the Federal Government, while seventeen states held title to all their lands themselves. He maintained that the original states in ceding, and Congress in receiving, public lands, intended that the territory should be formed into new states and taken into the Union on an equal footing with the original states. Though unsuccessful in convincing the East of the validity of this position, the "public land states" still consider the viewpoint basic.

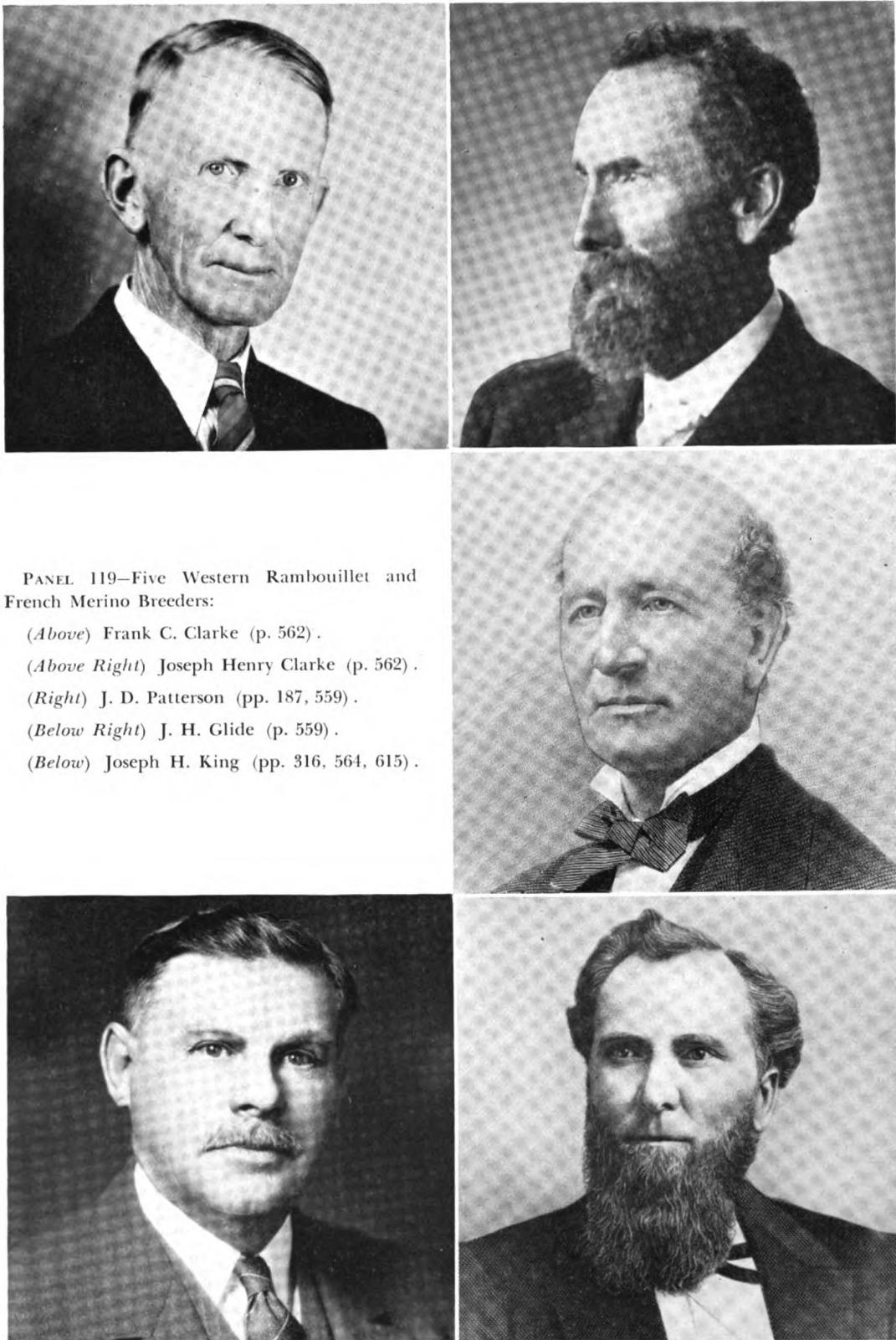
After the panic of 1837, each new state demanded that the Federal Government grant it the public lands within its borders. Senator Benton of Missouri asked cession of unsold lands to the states, as well as a donation to actual settlers of any federal land that did not immediately find a buyer at the regular price.<sup>6</sup> For a full century the West has held that the user of public land has a better right to it than a government that permits it to lie idle or to remain incompletely developed. The conflict between eastern conservationist and western pioneer was not based on unbridled avarice as often charged, but on practical methods of operating and financing the commonwealths in which the pioneers dwelt—while their major resources were controlled from Washington.

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<sup>4</sup> Paxson, *History of the American Frontier*, 387.

<sup>5</sup> Senator William Hendricks, *Twentieth Congress, First Session*, Vol. 4, Part I, January 28, 1828, columns 156-66.

<sup>6</sup> Paxson, *History of the American Frontier*, 383.



PANEL 119—Five Western Rambouillet and French Merino Breeders:

(*Above*) Frank C. Clarke (p. 562).  
(*Above Right*) Joseph Henry Clarke (p. 562).  
(*Right*) J. D. Patterson (pp. 187, 559).  
(*Below Right*) J. H. Glide (p. 559).  
(*Below*) Joseph H. King (pp. 316, 564, 615).



FIG. 120—Flock of old type Navajo ewes at Sheep Experimental Laboratory, Fort Wingate, New Mexico. Note grade Rambouillet in center foreground. These old type sheep carry fleeces best adapted to Navajo hand weaving (p. 548). (Sheep Experimental Laboratory, Fort Wingate, New Mexico.)



FIG. 121—Typical Navajo flock. Note mixture of sheep and goats, and black and spotted animals among the white (p. 546). (Photo from Wittick Collection, Laboratory of Anthropology, Santa Fe, New Mexico.)

Geographic changes as the westward movement progressed introduced another type of problem. Immigrants to the prairies preferred to dwell on the edge of the forest. All European cultures were based on this habitat, and no traditions for life in a treeless, relatively rainless region had been developed. The pioneers avoided the prairies in early Indiana and Illinois because they interpreted treelessness as a lack of fertility. When they learned otherwise they were still unable to distinguish the difference in agricultural practices belonging to a prairie and the plains. The farther west the frontier progressed, the more difficult it became to make a living on a quarter-section. Lighter rainfall, greater distance from market (in spite of the growth of the railroads), and credit limitations combined to make the minimum price per acre of a dollar and a quarter too speculative for even the most hardened frontiersman.

By the time the "short grass" country was reached the minimum price on land exceeded its capitalizable worth, based on agricultural productivity. Hence there were few public land buyers and the acreage to which the Federal Government held title remained larger and larger inside state boundaries. Scarcity of water and reduced productive capacity per acre forced the filing of homestead claims on the most accessible waterholes and streams.

#### STOCK-RAISING HOMESTEADS

Representatives of the "public land states" sought changes in the Homestead Law which would permit filing on broader acreages, but they were only partly successful. Public policy treated land on the basis of area, not productivity. Hence emphasis on control of water grew from 1870 to 1900, for the unowned intervening land could not be grazed without it. Excessive values crept

into homestead filings on water, stimulated by the grazing lands controlled. Land, worth much less than the minimum price, commanded sums several times greater because of the adjacent public grazing.

In 1909 the size of entry in certain "dry" areas in the West was increased from a quarter- to half-section. When the limit of entries on this land was approached, the size was increased to a section. The new grants were designated as stock-raising or grazing homesteads, and improvements through buildings, fences, and forage production were required to obtain title. More than fifty-six million acres were devoted to this purpose, and nearly half of the area had been patented when the drouths of 1934 and 1936 placed a quietus on this form of land acquisition.

#### GRAZING ON THE PLAINS

Early travelers failed to recognize the value of the range. Fur traders considered it a barrier to cross in reaching the trapping grounds, and "forty-niners" were equally handicapped in arriving at the "diggings." While caravans were still toiling to Santa Fe, school geographies had christened it the "Great American Desert." Its value as a grazing and fattening ground was reputedly discovered through the recovery of draft oxen and riding horses turned loose in the autumn to die.

Early military expeditions into the West, such as those of Lewis and Clark, Fremont, Abert, Emory, Ives, Stansbury, King, and Wheeler, presented notes on the native vegetation and made collections of the plants encountered. Missionaries like DeSmet and Spalding, and botanists like Nuttall, made observations of high informational value. However, such observations had little influence on early stockmen, and the Civil War had closed when pioneers commenced grazing

stock. Such immigrants had a traditional knowledge of pasturage in humid regions, but only denizens of the Southwest, where drouths occurred two to four years out of every ten, knew cropping and grazing practices for the high plains.

The necessity for supplemental feeds was recognized from 1700 forward, and hay and other feeds were grown in the Rio Grande Valley. By 1870 competition forced sheepmen and cattlemen to make decisions and act before they could learn by trial-and-error, or could develop rules-of-thumb for range management. Lacking legal security on government lands as well as opportunity to obtain private title to adequate acreages, the grazing principle that applied was "first-come, first-served." Hence the resultant pressure forced true range lands into unsuccessful dry farming, and large areas of submarginal sheep and cattle ranges became too heavily stocked.

#### CLASSIFICATIONS OF SHEEP RANGE

An early skill the sheepman gained was to distinguish general characteristics of ranges. As he went west, he left the tall grass of the prairies for the short grass of the plains. Finally he reached the brush and browse of the deserts. The southern range and mountain range was essentially a breeder's range, while the northern plains and valleys qualified for fattening. Hence the early range movement was into the "Territories."

The grazing resources were most varied in the plains region, but the coarse grasses of its moist areas—*andropogons* and *prairie reedgrass*, for example—proved better adapted to cattle than to sheep. The Nebraska sandhills provided a typical illustration of this kind of range. Medium grasses were equally valuable for both species. They included the wheat grasses, blue grass, meadow fescue, and needle grass. The short grasses—such as *buffalo grass* and *blue*

*grama*—were suitable for sheep, cattle, and horses alike.

The characteristic of plains grazing varied with the latitude. In northern Nebraska, the Dakotas, Wyoming, and eastern Montana, the medium grasses predominated and furnished excellent spring grazing that dried with the summer but revived with the fall. Farther south, in eastern Colorado, Kansas, Oklahoma, the Texas Panhandle, and northeastern New Mexico, the short grasses were most common. This region was easily affected by drouth and heavy grazing, as the medium grasses dried easily and the short grasses would then be "eaten out" or lie dormant.

Cattle prevailed in this region, but on the southern plains—the rest of West Texas and southeastern New Mexico—sheep gained on cattle in later years. This southern range was typical short grass country, reinforced by "browse" plants and semidesert growth—*curly mesquite*, *tabosa*, and various winter annuals. Grazing on the southern plains was not equal in quality to that farther north, but was available the year round. The Edwards Plateau in Texas illustrated range utilization by competing species—cattle using the short grasses; sheep, the weeds, herbs, and shrubs; and goats, the brush.

The true mountain range lay in the Rockies from the Canadian border to central New Mexico. It included high meadows which carried grass and weeds; timberline grazing based on grass, weeds, and sedges; grasses under spruce and fir on the intermediate and upper elevations; and bunch grasses and weeds under pine on the foothills and lower slopes. The first two classifications were used principally by sheep—the latter two by cattle. Only the last class of range was usable in winter, so mountain pastures have been principally identified with summer grazing.

Winter sheep range developed in the intermountain country, between the Rockies on the east and the Cascades and Sierras on the west. It comprised semi-desert country in southeastern Washington, eastern Oregon, southern Idaho, Nevada, western and southern Utah, the extreme western edge of Colorado, northwestern New Mexico, and northern Arizona. Desert shrubs predominated—salt bush, winter-fat, shad-scale, and desert grasses. The best known intermountain winter ranges for sheep developed on the Red Desert of southwestern Wyoming, in western Utah, eastern Nevada, and eastern Oregon. Spring and fall ranges of the sage-brush and bunch-grass type also existed in this area—in northeastern Colorado, western Wyoming, southern Idaho, northern Utah, northern Nevada, and eastern Oregon.

Finally there were higher altitudes in this region, with aspen, spruce and fir at eight to ten thousand feet, where grass, weeds, and browse made excellent summer grazing. The most widely used ranges of this type were in western Colorado, the Wasatch Plateau of Utah, northern and east central Arizona, and northwestern New Mexico. Seasonal movement of bands for grazing characterized the intermountain region from the beginning.

Typical ranges requiring migration of sheep also existed on the Pacific Coast. In western Washington and Oregon, and in California, sheep used the mountainous regions for summer grazing a century ago. The Cascade slopes were usually heavily timbered, while the Sierras were covered with dense brush. However, the mountain meadows had plenty of weeds, bromegrass, and oat grasses, and alfileria grew in the foothills of the lower Sierras, as well as on the Coast Range. Large numbers of sheep roamed these areas up to 1900, but it became so overstocked that after the

Forest Service took control, the numbers were reduced by half.

Three grazing plants have received considerable publicity in connection with sheep. Alfileria ("filaree") was important to the sheepmen of Utah, Arizona, and New Mexico, because it was introduced in the fleeces of California trail sheep, and because it fitted so well into the seasonal routine. On the warmer ranges, "filaree" made its appearance two to three weeks after the late fall rains set in, but in the colder higher altitudes it usually required six weeks. When "filaree" reached six to ten inches in height, it began to cure, and then disappeared in about six weeks. It was valued as a short season feed, high in protein, and many sheepmen considered it equal to alfalfa.

In the Southwest, especially Texas and New Mexico, porcupine, or needle grass, proved annoying. Awns of the latter would catch in the fleece, work into the skin and initiate festering areas that in some cases caused fatalities.

The third grass "struck" the northwest in Washington, Oregon, Idaho, and Montana, and was known as "cheat" grass (*Bromus tectorum* and *Bromus secalinus*). This spread rapidly after World War I, reducing the feed resources wherever it appeared. Excellent for early grazing, its feed value was minor when cured. However, it was extremely helpful in some shed lambing areas, where it provided an early seasonal stimulus to the ewe's milk flow. "Cheat" grass came in as a replacement on plowed or overgrazed ranges rather than as an aggressive plant crowding out the preceding herbage.

#### RANGE RIGHTS

Limits of a range were difficult to define. One could easily recognize the territory over which cattle naturally grazed, as a herd stayed in the same

general locality. Prior use made a cattle-man's claim have some validity, but sheep had no comparable habit. The herder's practice of keeping flocks on the move led to range trespasses from the cattlemen's viewpoint—and much bad blood. As long as there was room for all comers, the custom of priority took care of the situation. But when the range became crowded, conflicts developed.

No authority existed which would either permit or prevent the use of any particular locality by anyone desiring it. Claims for the right to graze a particular location were never recognized federally, but early laws of the various territories provided penalties for those driving stock from their accustomed range—apparent recognition that the stockgrower had some sort of right to the region that he utilized.

The small sheepman had no protection under this custom, however. In early days the nature of his business did not call for a restricted range nor for a headquarters for his bands. Hence, the cattlemen held local recognition in using grazing land, and the sheepman appeared to be an interloper or trespasser. This applied especially to the smaller outfits, as the larger sheepmen in Wyoming and Montana occupied and claimed particular ranges much the same as the cattlemen.

The end of the century saw complicated range problems—homesteaders, heavy stocking of ranges, and intense sheep-cattle competition. A Public Land Commission was appointed by Theodore Roosevelt early in his second presidential term to grapple with the issues. In 1905, this commission reported on the remaining public domain, and set the stage for the range program of the United States Forest Service and the Taylor Grazing Act. Stockmen returned more than fourteen hundred questionnaires to the commission, and they indicated that

the lack of control of range lands, and the destructive competition thus encouraged, was depleting millions of acres of valuable grazing.<sup>7</sup>

#### FEDERAL CONTROL OF GRAZING LANDS

By 1900 all true farm land within the public domain had been taken up, except that which might be developed under irrigation or public works projects. A new problem arose as the mushroom prospecting period in mining closed, and the petroleum industry began to boom—for a distinction was made between surface and subsurface or mineral rights—and the Federal Government retained the latter permanently. As a sop to the "states rights" advocates, partial repayment of the income from mineral leases and grazing permits was approved. One-half of the income from the Grazing Administration leases and a quarter of that from the National Forest grazing fees were later allotted to the states in which the grazing districts of the Department of the Interior or the National Forests were located.

In the eleven great sheep-producing commonwealths—Montana, Wyoming, Colorado, New Mexico, and westward—there are approximately 753 million acres, of which 444 million or three-fifths, are still publicly owned. All but a small proportion of this is under federal jurisdiction, much of it unavailable for use by sheep and cattle raisers. Hence no taxes on agricultural income from these great areas can be levied by states within whose boundaries the public lands are located, and the portion of the fees collected by the Grazing Administration and the Forest Service must substitute.

New Mexico is an excellent example of federal administration of lands within

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<sup>7</sup>Report of the Public Lands Commission, 58th Congress, Third Session, Senate Document 1103.

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its area, though not extreme.<sup>8</sup> The state has approximately 78.4 million acres, of which 31.3 were under federal control in 1942, and 32.6 in 1943. Of the remainder, 34.4 million acres were privately owned in 1942, and 33.1 in 1943,<sup>9</sup> a direct transfer from private to federal ownership. Nearly 21.5 million acres were in soil conservation districts.

Indicative of the trend of the Federal Government within the state was the fact that between 1930 and 1942 the Forest Service took a half-million additional acres under its control; the Indian Service approximately a million (with no relationship to changes in Indian population); Soil Conservation (which did not exist in 1930) over three-quarters of a million acres; the Army over a million and a half; National Parks approximately a fifth of a million; the Reclamation Service and the Fish and Wildlife Service each over an eighth of a million; and all other federal agencies, including Farm Security, over a twentieth of a million acres. The area used for training purposes by the Army alone equaled in size the state of New Jersey.<sup>10</sup> Under such a record, it is not surprising that the citizens of New Mexico complained of federal encroachments. Yet New Mexico is in a stronger position with reference to privately owned land than many other western states.<sup>11</sup>

#### INDIAN LANDS

Diversion of the public lands to special projects started early. When the public land office opened, school lands had already been set aside for educational purposes.

A second withdrawal came in Indian reservations. These lands ultimately exceeded seventy-one million acres, nearly a tenth of the total western area. Indian lands have been under lease to whites for approved uses since the middle of the last century. Two classes of land

exist—tribal and “trust patent.” Tribal lands are held in common by the tribe, and leases are issued by the tribal council and the Indian agent, acting jointly. “Trust patent” lands are half-sections granted to individual Indians, and held in trust for twenty-five years by the agent. When the land is used for grazing, the leases of the individual allottees are usually managed by the agent. The allottees may lease their acreages themselves, subject to his approval.

Grazing on Indian lands developed widely after the Civil War, but leases for horses and cattle were acquired more frequently than sheep. However, C. M. Bair put thousands of sheep on the Crow Reservation, out of Hardin, Montana. Leases on the reservations run the year round and are normally issued to nearby ranchers whose holdings can be fitted into a complete management scheme. Most essential is the capacity to provide winter feed, especially hay. A better quality of grazing is usually available on

<sup>8</sup> For comparison, the *Arizona Cattlemen's News Letter and Market Report*, Phoenix, Arizona, August 29, 1944, showed that the federally controlled or owned lands within the state were 54 million acres out of 72.7 million acres, or 74.3 per cent. When additional lands purchased for military purposes, condemnations, gifts, and purchases under other federal programs were included, only 18 per cent, or something over 13 million acres, were in private hands or state-owned. Principal areas were:

	<i>Million Acres</i>
Indian Reservations .....	19.2
National Forests .....	11.4
U. S. Grazing Districts .....	10.9
U. S. Dept. of Interior Lands .....	16.7

<sup>9</sup> A. D. Brownfield, Deming, New Mexico, vice-president American National Livestock Association, address before annual convention, New Mexico Wool Growers' Association, Albuquerque, New Mexico, February 4, 1943.

<sup>10</sup> Frederic P. Champ, Logan, Utah, Chairman, Public Lands Committee, United States Chamber of Commerce, address before annual convention, New Mexico Stock Growers' Association, Albuquerque, New Mexico, March 2, 1944.

<sup>11</sup> Floyd W. Lee, San Mateo, President, New Mexico Wool Growers' Association, address before annual convention, Albuquerque, New Mexico, February 4, 1943.

Indian lands than on the National Forests or Grazing Districts. Since leases are good the year round, the lessee may make full season plans, and adjust more freely in case of emergencies. The best grazing on Indian reservations is found in Montana, Wyoming, Idaho, and South Dakota. In New Mexico, Arizona, Oregon, and Washington, the grass is reserved principally for Indian livestock.

According to the nature of the grazing lands and the competition for their use, sheep leases cost from five to twenty cents per head per month. Indian leases are usually more desirable for large owners who can distribute their labor and overhead than for smaller owners who operate under less flexible conditions. When winter feeds are inadequate it is more economical, on a head basis, for large operators to ship in feed or to ship flocks to other ranges, than it is for small operators to do so.

The chief difficulties in running sheep on the reservations have come from the theft or slaughter of livestock by the Indians, and from sharp trading practices by the whites. Most of the problems that arise are personal ones, based on the idiosyncrasies of the lessors, the Indian agents, or their individual wards.

#### RAILROAD LANDS

Following Indian lands, two large classes set aside were railroad lands, first appropriated about the middle of the last century, and grants for colleges and universities under the Morrill Act of 1862. Both types of lands moved rapidly into private ownership. Railroad lands finally totaled more than ninety-three million acres, and were "checkerboarded" across the federal domain in alternate sections, in strips from ten to thirty miles wide and paralleling the right-of-way. The checkerboard pattern gave the railroads a square deal in the quality of land ceded, and at the same time pre-

served for the government 50 per cent of the value of the lands in any area.

From the grazing viewpoint it permitted abuses. Since the sections met at a tiny point, there was no access, strictly, from one section of railroad land to another without trespassing over government land, and vice versa. Hence whoever leased the railroad lands had control of the alternate sections of government land. No one could enter the government sections because the railroad sections barred ingress, hence the lessee of the railroad land was the only one who could use the government land. Such lessees usually ran a fence around their leases and thus enclosed government sections. As a result railroad lands had excellent rental values, and charges of favoritism in the use of enclosed government lands developed.

In certain regions, railroad lands fell within areas set aside for National Parks, National Monuments, Forest Reserves, Indian Reservations, and similar projects. The government then provided the railroads with "lieu" lands, where the latter could make selections in exchange. Lieu lands did not necessarily follow the checkerboard pattern, however.

#### NATIONAL PARKS

More than twenty million acres have been reserved for scenic and recreational purposes in the National Parks and Monuments, under the Department of the Interior. They date back to 1832 when the Hot Springs Park was established in Arkansas, but the organic act uniting them was not passed until 1916. The original idea was that National Parks included areas of unusual scenic beauty or impressive natural phenomena—distinctive regions like the Yellowstone, the Yosemite, the Grand Canyon, or the Carlsbad Caverns, where private operation could not produce enough in-

come to preserve the locations in pristine majesty and beauty. The original assumption was that the value for recreational uses would exceed all other considerations, but that there would be only limited interference with the economic productiveness of the general region.

National Monuments were authorized under the Antiquities Act of 1906. A National Park could be established only by Congressional action, but a National Monument could be set aside by Presidential Order. National Monuments were originally conceived to be small areas of historic, prehistoric, or scientific value, that needed protection against destruction, spoliation, or conversion to private use.

The western livestock industry looked on the persistent effort to enlarge the Park and Monument system with alarm. Promoters of Parks and Monuments opposed grazing within their boundaries, and supported policies that barred domestic animals. During World Wars I and II, exceptions were made in limited districts, as also happened during the severe drouths of 1934-36. Today Carlsbad Cavern is the principal National Park permitting the grazing of livestock.

Between 1934 and 1941, the number of National Parks and Monuments was increased from 129 to 164, and the total area rose from approximately fifteen million acres to nearly twenty-two million.<sup>12</sup> Four hundred thousand acres in the King's River Valley of California were withdrawn in March, 1940. This removed from grazing use a vital area in a region where there were already three large national parks within a sixty-mile radius. The Dinosaur National Monument of 80 acres in Utah was expanded to more than 205,000 acres in Utah and Colorado. In both cases the extension was made over vigorous opposition from the states involved.

According to stockmen, the climax in promotion of Park expansion came in March, 1943, when an executive order was issued, without notice, setting aside 222,000 acres in Jackson's Hole, Wyoming. Included in the land were approximately 50,000 acres privately owned, three-fifths of which had been acquired to aid in the transfer of the federally owned land from the Forest Service to the Park Service. The order was issued over official protests of both community and state, as well as over adverse votes in Congress. Already the great Yellowstone and Grand Teton National Parks were adjoining this area, and the suggested historical justification for the action—traversing of the region by John Colter before discovering Yellowstone Park—was equally valid for a hundred or more miles elsewhere.

The State of Wyoming believed the action setting aside this National Monument was a subterfuge to extend the boundaries of the Park, and so asserted in the United States District Court in Sheridan, Wyoming, in August, 1944. Local ranchers affected by the proclamation testified that their grazing rights were curtailed or lost, and that the local government would be bankrupted from failure to obtain taxes on the private lands swallowed by the Monument. They indicated that the homes and livelihood of many families were threatened, and trailing to winter and summer range was subjected to the whim of another federal bureau. However, the stockmen's views have not yet prevailed in court.

#### RESERVES FOR FORESTS

The original forest reserves were sequestered under an act of Congress passed in 1891, and were administered by the General Land Office. The first large reserve was established in Wyo-

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<sup>12</sup> Champ, Address, March 2, 1944.

ming that year, and was called the Yellowstone Timberland Reserve. Five more forests were set up in 1892, and nine in 1893, the largest being in Oregon. Two more were added in 1894, twelve in 1897, and five in 1898, including a large area in Arizona. The original act failed to provide for the management of the forest reserves or the economic utilization of their resources. Hence on June 4, 1897, another act was passed which detailed principles under which the reserves and their resources would be managed and used. The second law gave the Secretary of the Interior full authority to establish the necessary administration. The Bureau of Forestry, which had been set up in the Department of Agriculture in 1876, had no control of these forests, although it was clothed with an advisory status.

The mountainous areas chosen for forest reserves were also areas in which western sheep had previously obtained their summer grazing. It was obviously impossible for the Federal Government to hold title to, and administer, the forest reserves without regard to the grazing practices which had been followed for decades. Unfortunately neither the acts of 1891 nor 1897 mentioned the forage resources specifically. A conservationist group that had already been disturbed by the uncontrolled use of the public domain and the unrestricted competition among its users, advocated exclusion of livestock. They saw an opportunity to use the new forest reserves to halt overgrazing and create a public issue.

The first forest reserves were administered to save the trees then in existence, start a reforestation program, and protect the watersheds. Because grazing was believed to retard reforestation, and livestock to denude watersheds and pollute the water supply, most contemporary officials in Washington opposed grazing the new areas. Hence, when the Cascade

Mountain Reserve was set aside in 1893, the first official regulation prohibited the "driving, feeding, grazing, pasturing, or herding of cattle, sheep, or other livestock"<sup>13</sup> inside the new boundaries. Those boundaries were tremendous, for they stretched through the Cascade Ranges of Oregon from the Columbia River to the California line.

This barred the majority of Oregon flocks from their normal summer feed, so in 1896 the entire Oregon delegation in Congress attempted legislation to reduce the size of the Forest. They obtained a compromise—under which Dr. Frederick V. Coville, Chief of the Division of Botany in the Department of Agriculture, made a study of grazing on that particular reserve. Coville suggested controlling "the evil effects of sheep grazing" by regulation and management rather than prohibition, but confined his recommendations to the Cascade Mountain Forest Region alone.

The issue soon came to the front again when the Black Mesa and San Francisco Forest Reserves were authorized in Arizona, in 1898. The irrigation group in the Salt River Valley opposed grazing sheep on the headwaters of streams from which they drew their water supplies. Their attitude was supplemented by interests that desired to exchange their checkerboard railroad lands inside the new reserves for more valuable lieu lands elsewhere. To gain time for the transaction, they claimed that the forest cover had to be preserved or restored on mountain crests so as to protect the watershed, that this cover had to be owned *en bloc* by the Federal Government, and that it would be destroyed by livestock. By criticizing sheep particularly, they received support from a few

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<sup>13</sup> Frederick V. Coville, "Forest Growth and Sheep Grazing in the Cascade Mountains of Oregon," *Bulletin 15*, 10.

short-sighted cattlemen who failed to realize that they would be prohibited next if sheep were barred.

In the spring of 1899, Secretary of the Interior Ethan A. Hitchcock excluded all livestock from the Black Mesa and San Francisco Reserves. This restrictive policy was dangerous to sheepmen all over the West, since it denied most of them access to their summer ranges. A committee of stockmen headed by E. S. Gosney of Arizona went to Washington and succeeded in getting the usual grazing through 1900. In the meantime the effect was to be studied by two specialists in the Department of Agriculture—Gifford Pinchot, Chief of the Bureau of Forestry, and Dr. Coville, already mentioned.

Pinchot enrolled as guides a cattleman named Jack Nelson and a sheepman, Albert F. Potter. Potter was then operating about four thousand sheep. Their report on the Grand Canyon North, the San Francisco Peaks, and the Black Mesa North Forest Reserves was expected to provide the basis for grazing policy on the forest reserves.<sup>14</sup> Secretary Hitchcock did not make the report public, but it was assumed to indicate that controlled sheep grazing was not injurious to the forests. Later it was learned that they reported livestock grazing was compatible with the major objectives of the Forest Reserves, and was vitally necessary to the economic security of the regions in which the Reserves were located.

When no action was taken by the Secretary, it appeared that the earlier order closing the forests to sheep would stand. A majority of Washington authorities were still zealots against grazing. Once more representatives of the industry went east, and with the advice and assistance of Pinchot, succeeded in persuading President Roosevelt to instruct Secretary Hitchcock to rescind the order. This went into effect in 1902

and grazing privileges were assumed on most of the Forest Reserves thereafter.

The whole problem was far from simple. Provocative acts that incited attempts to bar sheep were common among the "hobo" sheep bands whose herders abused the ranges. And the prohibitive policies that caused legitimate sheepmen and cattlemen so much difficulty originated with amateur, but fanatical, conservationists influencing distant Washington officials. Furthermore, the divided authority that has always characterized federal administration of public lands created many issues for the sheep and cattle industries during early decades of this century.

Policing the normal activities of stockmen has never flattered them. When the forest reserves were established in California, under the Department of the Interior during the 1890's, soldiers patrolled the boundaries against trespass, as had been done earlier in the National Parks. In most cases the forest limits were badly defined, and unmarked over long stretches. Unintentional trespass was just as probable as intentional. Austin wrote of the system at Yosemite half a century ago:

The men (soldiers) rode smartly two-and-two along the Park boundary; one day they rode forward on their appointed beat, and the next day they rode back. Always there was a good stretch of unguarded ground behind them and before. If they found tracks of a flock crossing their track, they had no order to leave the patrol to go after it. . . . During the Cuban war . . . the Park (was) left to insufficient wardens (and) sheep surged into it from all quarters. They snatched what they could, and when routed went a flock-length out of sight and returned to the forbidden pastures by a secret way. . . . By this mismanagement . . . the foundation was laid for the depredations, the annoyance, and misunderstandings that still make heavy the days of the forest ranger.

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<sup>14</sup> Haskett, "History of the Sheep Industry in Arizona," *Arizona Historical Review*, 7, No. 3 (July, 1936) :41.

After the return of the soldiery, enforcements were stricter but trespasses made more persistent by a season of dry years that shortened the feed on the outside range. The sheepmen were not alone in esteeming the segregation of the Park for the use of a few beauty-loving folk, as against its natural use for pasture, rather a silly performance. No proper penalties were provided for being caught grazing on the reserve. An ordinance slackly enforced is lightly respected. More than that, sheepmen who by long custom established a sort of right to those particular pastures considered themselves personally misused. They must now resort to infringement on the grazing rights of others or be put out of business; not, however, before they had made an effort, and a tolerably successful one, to break back to the forbidden ground.<sup>15</sup>

While the threatened destruction of their business "gripped" the legitimate sheepmen and cattlemen affected by the new reserves, the federal action challenged new trickeries by the "tramp" flockowners. And, since it was easier to penalize all sheepmen than the individual wrong-doers, the industry was kept in an uproar for more than a decade.

Through singular obtuseness, eastern conservationists failed to distinguish between sheep as a class of livestock and sheep bands handled by wanton herders. Forests in California, Nevada, Arizona, and New Mexico were closed temporarily to ovine use between 1900 and 1905, while cattlemen living near the reserves, by special permit and small rental fees, were allowed to utilize certain meadows at particular seasons.

Small wonder that the legitimate sheepmen felt this was discrimination. They objected to being classed with vandals who lived by violating the regulations, though the most sorely pressed could not be blamed if they slipped into the forbidden areas by night and came back out by day, ashamed that they had to do so, but believing it was essential to have the *game*, if Washington branded them with the *name*.

No sheepman would deny the close

grazing along the old trails from the Coast to the Territories, nor evade the blame for denuded ranges near public shearing sheds or permanent bedgrounds. But those conditions were the fault of the shepherd not of the sheep. "Do sheep eat young pines except of starvation, or crop the grasses into the rootstock, or trample the earth into a fine dust, or break down the creek banks in passage, except the herder imposes such a necessity? Do sheep light forest fires or turn streams from their courses?"<sup>16</sup>

On many occasions, early grazing officials were arbitrary with other divisions of the government. For example, a primary rule was that a sheepman or cattleman trespassing on the forest should leave by the shortest route. In Wyoming, Frank A. Hadsell of Rawlins, then United States Marshal, was sent to drive several bands of sheep off the Medicine Bow Forest.<sup>17</sup> The shortest route would land them on a cattle range, when the Wyoming cattle-sheep friction was at its height. Intelligently Hadsell suggested another route, though not the shortest, that avoided trespass on the cattlemen's claims. Despite his wise decision, much effort had to be expended to protect him from red-tape zealots.

The foregoing cases are not representative of ranger-herder relations, but are isolated incidents stockmen remember, which show the background on which friction was based. In the interval since the National Forests were established, sheepmen have learned more of their own responsibility and rangers have been taught more about sheep. One well-liked official of the present tells

<sup>15</sup> Austin, *The Flock*, 193-95.

<sup>16</sup> *Ibid.*, 209.

<sup>17</sup> Kleber Hadsell, Rawlins, Wyoming. Interview with author, February 19, 1944.

how he herded a flock *into* a luxuriant mountain meadow, only to be cursed soundly by the herder, who was trying equally hard to move his band *around* the area. The meadow was full of poisonous lupines, which the ranger did not recognize. Ignorance of both parties usually underlaid misunderstandings of this sort. But ignorance of many wool growers in the early days was interpreted as selfishness, avarice, or malice.

The chief difficulty lay in dealing with tramp sheep owners. They had no permit to graze in the forests, and all a ranger could do was to scatter the sheep and make their regathering expensive. This scattering also reduced the damage within a forest that might be done by closely herded flocks. The hope was that the losses and costs were fully punitive to the offending owner. But relations with *bona fide* operators among the sheep owners were strained and distorted in early days by the impractical regulations set up by eastern officials.

#### THE FOREST SERVICE

On February 1, 1905, the forest reserves were transferred from the Department of the Interior to the Department of Agriculture, and assigned to the Bureau of Forestry. At that time a little over sixty-three million acres had been set aside, but President Roosevelt promptly trebled the area. In keeping with its expanded duties, the Bureau of Forestry was renamed the Forest Service, and its personnel greatly increased.

For administration of the range, only men with practical experience were available; some of them showed sound attitudes, others merely wielded authority. Hence courses in forestry were introduced into agricultural colleges to provide scientific training for the Service. Soon men were being graduated who were expected to "ascertain, by local study, the relative value for grazing, soil,

and other requirements for growth and reproduction, the best methods of use, and other factors, which together determine safe grazing capacity, proper seasons of use, adaptability of the range to different classes of stock, requirements for sustaining the forage production, and how to hold the soil and maintain its fertility."<sup>18</sup> This was quite an academic accomplishment for a young graduate in the early 1900's, but a goal whose attainment led to greatly increased efficiency within the Service.

#### NATIONAL FORESTS

Two years later, March 4, 1907, the name of the forest reserves was changed to National Forests. Permits for grazing were issued which limited the season according to climatic conditions, while fees were charged on a "per head" basis. Driveways, trails, and roads were set aside or constructed to take care of flocks moving to, or across, the Forests, and the sheep were counted into the Forest when they entered and were counted out again when they left. Water facilities were developed, fences were erected to exclude trespassing herds and flocks, corrals and pastures were set aside, and other physical improvements added. Advisory committees consisting of forest permittees were established, though for three decades most stockmen felt that the committees were mere figureheads, whose recommendations were ignored or overridden. The general principle of local autonomy in grazing matters was recognized by the Forest Service from its inception, but was not always worked out practically. Yet seven hundred such boards were functioning by 1940, and more exist today.

The establishment of the Forest

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<sup>18</sup> "The Western Range," *Senate Document 199*, Seventy-fourth Congress, Second Session, 1936.

Service accomplished great good for the sheep industry from 1905 forward. It rid the summer ranges of tramp sheepmen, it slowed the deterioration of the summer grazing, and it provided for more orderly utilization of the summer range. Reasonable routines were gradually established in what had been a chaotic situation, and attempts were made to restore the natural pasture grasses, among which uncontrolled competition had caused havoc.

#### DISSATISFACTION AMONG PERMITTEES

Three principal sources of dissatisfaction with the Forest Service have been the charges for grazing fees, the size of permits, and the length and security of permits. These items involve the economics of flock husbandry. Values of "patented" land (to which private title is held), at the time most sheep operations were set up, were based on the public land controlled, in addition to the actual value of the acreage patented. In general, the assessors and land salesmen pushed these values as high as they could and permit the sheepmen or cattlemen to pay a return on the declared value. Possibly these values were inflated, under current social theory, but they represented actual money expenditures for all except the original owners. Hence when higher grazing fees were installed, they forced an operational loss or lowered the value of the privately owned land with its fixed investments. Opposition, therefore, developed whenever imposition or increase of grazing fees was proposed.

The Forest Service has always asserted that the Act of 1897 authorized it to impose fees for grazing, and believed that such fees provided a valuable regulatory means as well as funds that could be used for range improvements. The size of the fees raised dispute. Many stockmen felt they should be nominal, since

so much of the grazing value of the public land was capitalized into the private holdings. Eastern livestock operators, on the other hand, liked high fees since high western production costs protected their own operations. In addition, conservationists wanted rates high enough to discourage grazing of any sort.

In 1906, fees were first collected at five to eight cents per sheep for the summer grazing season, with an extra charge of two cents per head on ewes that lambed there. The regulation (No. 25, 1905) stated that these prices would be advanced gradually when market conditions, transportation facilities, and demand for reserve range warranted it, but added that the grazing fee would in all cases be reasonable and in accordance with the advantages of the locality. In 1910, the year-long fees for sheep were increased from ten to eighteen cents per head. In 1915, cattle rates were raised until they ranged from 40 cents to \$1.50 per head, and sheep rates were fixed at a fourth of these amounts. A year later the fees were again advanced, the maximum for sheep being  $37\frac{1}{2}$  cents for the season. In 1920, while livestock prices were still at war levels, the House Committee on Agriculture tried to raise fees 300 per cent. But the Forest Service opposed, on the ground that livestock prices were too inflated and unstable to justify the move; also that it would involve changing rates on five-year permits issued in 1919.

As a consequence, a study of fees was begun, based on the rental value of privately-owned range lands which could be compared with ranges inside the National Forests. This was completed in 1924, but the livestock associations objected to the results of the appraisal, so no change was made from the 1919 level except where the new rates were lower. The Chief Forester then recommended that the Secretary of Agriculture

select a competent man, not connected with the Forest Service, to check the appraisal. The 1919 rates were continued through 1926. Captain Dan D. Casement, Manhattan, Kansas, was chosen, and his recommendations resulted in a lower level of fees.

The adjusted rates were approved by representatives of the industry at Salt Lake City, January, 1927, and were placed in effect in 1928. Where increases were required, they were applied in annual installments of 25 per cent, beginning with 1928. The full increase was made effective in 1931, and sheep-grazing fees finally ranged from 2.9 to 4.5 cents per head per month, according to the nature of the grazing.

The principle was also adopted that charges would vary with the market value of livestock. In 1933 fees were therefore reduced in line with market prices, and a formula was set up for determining the annual charge per head. The ratio of the last year's sheep price to the base sheep price was applied to the base fee, and the result determined the fee for the current season. The basic sheep price was \$9.15 per hundredweight—the average 1920-32 price for the eleven western states—and the price of the preceding year determined on Bureau of Agricultural Economics prices for lamb. The basic grazing fee per sheep was set at 4½ cents a month. Using this formula, the fee for 1933 turned out to be 2.05 cents per month, and in 1944, 6.25 cents. Correspondingly, lamb prices rose from \$4.18 in 1933 to \$12.60 in 1944, but declined to \$12.30 in 1945, while grazing fees dropped to 6.03 cents. This basis of fee determination has proved quite satisfactory, but the effects of a rapidly declining market have not been experienced. Since each year's fee lags a season behind current prices, this situation might prove burdensome when prices break extremely.

Size of permits introduced the question of economic units for range production. Various studies indicate that satisfactory range units of sheep, involving a herder, should not fall below a thousand head. Yet reports show that in some National Forests (as in Utah with a congested farming population or in New Mexico with a large percentage of "Mexican" flock owners), the average grazing permit falls to about four hundred head. Critics have claimed that permits for such flocks produce actual inefficiencies in the industry by encouraging inadequate operators.

In defense of small flocks it has been stated that many permittees actually own very few sheep, and that for democratic and social equality they must be given permits the same as larger operators. According to the Service, the greatest reduction of big operators occurred when the forests were set aside. Officials of sheep associations, on the other hand, point out that the Forest supervisors often add a band or two belonging to small operators on ranges nearly stocked, and then make proportional "cuts for protection." Also when the so-called "cuts for distribution" have been made they believe that the larger permittees have been singled out and have been handicapped still further in meeting international sheep and wool competition. They insist that a policy favoring smaller bands makes artificial price supports more necessary, if the industry is to provide a national sufficiency of wool and dressed meat.

Statistically, the Forest Service indicates<sup>10</sup> that there have been no important changes in the average size of permit grades. However in 1909 the average percentage of flocks of Grade I (under a

<sup>10</sup> W. L. Dutton, Chief of Grazing, U. S. Forest Service, Washington, D. C. Letter to author, July 10, 1945.

thousand head) was 48; in 1939, 64. For Grade II (a thousand to twenty-five hundred) the corresponding figures were 39 and 28; for Grade III (twenty-five hundred to four thousand) 9 and 5; and for Grade IV (over four thousand) 6 and 3. All three larger grades were reduced and the smallest increased.

Finally the question of "distribution" has provided a long-time source of irritation. "Distribution" is the practice of reducing existing operators' permits to give grazing to others. The year 1918 saw the peak for numbers of livestock and operators on the National Forests. Since then the policy has been to cut gradually the number of both; 40 per cent in animals and 20 per cent in permittees. However, part of the decline in ratio of large operators was due to the fencing of homestead lands, which reduced the remaining grazing facilities.

At the expiration of the 1934 term permit period, the Forest Service announced that five hundred larger permits would be cut for "distribution" during the next ten-year period. Hence all men who had built up their flocks on previous grazing permits expected their operations to be cut arbitrarily, and their assurance of stability lost. The Forest Service proposals suggested that grazing was to undergo a revolution paralleling the other "socialistic" changes taking place at the time. The Service administered more than a third of the summer sheep grazing in the eleven Western states, and held a power to regulate individual operations that discouraged wool growers in the face of the increasing political restrictions then developing.

Only by freedom from the threat of discriminatory cuts was it possible for the larger owner to be assured of permanence, though he still felt he must do business at the whim of an official who could interfere with his operations and restrict his production. Wordy

battles developed in the Congressional hearings, at contemporary wool growers' meetings, and at joint sessions held by Forest officials and sheepmen. Flockmasters became convinced that the only recourse against Forest Service policies was to threaten retransfer to the Department of the Interior. In 1937, however, the Service adopted a new policy that suggested greater grazing security than had previously been experienced under its administration. Instead of the old "protective limits" which left a constant threat of "cuts for distribution," new maximum and minimum limits were set, which assured an owner that his bands would not be cut below an economic size. But currently the ten-year permits dated in 1937 terminate, and Forest users again are disturbed over hints of cuts in their allotments, and widespread attacks on them and their operations by certain Forest Service officials and crusading journalists.

Yet, during the period that distrust flourished against the dogmatic heads of the Forest Service, relations with the rangers and officials actually working in the forests improved constantly. Men who had completed forestry courses in college became acquainted with the conditions that shaped the views of sheepmen and cattlemen, and found there was little destructiveness in their attitude or selfishness in their demands as a group. Individuals seeking advantage or aggrandizement at public expense were recognized even more readily by the advisory committees than by the Forest officials. So the local representatives of the Service developed respect for the permittees and gradually accepted the unofficial cooperation of their local boards. The Chief of Range Management in Washington said in 1940:

It became clear during the earlier days of administration that an organization of responsible resident officers was needed to carry out the provisions of the organic legislation creating the National Forests. . . . The job of manage-

ment should be the joint responsibility of permittee and Forest officer. The success of it will be strongly affected by the degree of respect each has for the other and the way in which they work together. . . .<sup>20</sup>

#### FOREST GRAZING RESEARCH

One of the chief influences modifying the traditional attitude "higher up" was the series of investigations on grazing carried on by the Range Research Division of the Forest Service. Limited studies were first conducted between 1905 and 1909. Then in 1910, organized experiments were undertaken. About 1928 it became possible to apply lessons of the earlier research to the National Forests, much of which provided a scientific background for the opinions developed by the most progressive stockmen through experience.

The Office of Grazing Studies was set up as a division of the Branch of Research in 1926, and all range experimental research of the service was consolidated in regional and range experiment stations. Cooperation with the various state experiment stations and with other bureaus of the Department of Agriculture was fostered, and increased appropriations for grazing research were provided by Congress. This research covered the determination of values of the various range plants, the grazing capacity of different types of ranges, re-seeding practices, methods of handling livestock on the ranges, control of losses from poisonous plants, reduction of risk of fire through grazing, as well as using grazing to reduce underbrush and the fire hazards resulting therefrom, and the management of grazing in connection with wildlife maintenance, timber production and watershed preservation.

Independent research was undertaken, covering the simple facts of a stockman's everyday information, as well as the things which he could never measure separately as a private operator. Out of the research has come an understanding

of basic principles of range management—the desirable classes and kinds of livestock, the timing and length of the grazing season, and the proper numbers and distribution of animals. This kind of knowledge had to be confirmed, where official crusading tradition dissented.

One of the ills of overgrazing was the loss of seed from the desirable perennials. The research program has contributed greatly to range forage production through re-seeding. Under deferred grazing practices, ranges pastured by sheep often recovered more rapidly than when they were barred—the seed of desirable plants being brought in the wool and spread over the range. Sheepmen have known this for many years, but were as likely to credit the grazing with causing increased stooling of the forage plants as with spreading the seed.

In 1940 the Assistant Regional Forester at Ogden, Utah,<sup>21</sup> emphasized as a result of the research program, that over-grazing of a range did not necessarily involve taking all livestock off it immediately. The quickest recovery came when the animals were removed at once, and removal was mandatory during the following season, but several other remedies were first available. He pointed out that under current Forest policies, the permittee had rather "exclusive use of the area" allotted to him, and that grazing a few head less for a year or two, or entering the range a little later in the spring, or re-seeding, or a number of other typically sound practices could be adopted rather than abandoning the use of the area for some time.

The most important adjustment in thinking by the Service was to recognize

<sup>20</sup> Dutton, Address before convention, National Wool Growers' Association, Casper, Wyoming, January 24, 1940.

<sup>21</sup> C. E. Favre, U. S. Forest Service, Ogden, Utah, address before convention, Wyoming Wool Growers' Association, Lander, Wyoming, August 5, 1938.

that revenue to the grower is essential, and to hold it in mind when adjustments had to be made. When feed became short on the Forest ranges, the usual procedure was to turn flocks off before the end of the appointed grazing season. At such times grazing fails elsewhere, and most of the permittees have no place to go. Hence limiting the season was not usually a practical remedy for the flock owner.

To ease this situation, spring and fall ranges were developed that fit the summer and winter grazing programs. Real assistance to stockmen was given in building thousands of miles of fence inside the forests, to facilitate handling and save the growth on the lambs. Breeding pastures were provided in some forests, and trails and bridges into the back country have facilitated the supply of sheep camps. Finally the Service has become interested in predatory and wildlife control, and now conforms better with the natural reactions of the permittee.

#### REDUCTION OF FOREST GRAZING

The chief source of dissatisfaction with the Forest Service since 1918 has been continual reduction of sheep on the National Forests. Stockmen feel, after forty years of supervision by the Forest Service, that the summer range should have been restored to a point where it could carry as many sheep as formerly. Yet most National Forest ranges cannot do so except in years of unusual precipitation. Some ranges have failed to recover after all of this period because they were too badly depleted when restoration commenced. Not only was there a deficiency of seed to carry forward the most desirable forage, but the fertile topsoil was gone. Even with the best management possible, many of these ranges have been only partly restored.

Another factor slowing restoration has been the difficulty of making adequate

early adjustments when drouth, fire, or overgrazing hit a range. When such adjustments were made early, the effort was small, and the time for recovery short. Delay and inadequate adjustments have accentuated the overgrazing, and have forced cut after cut. This has been the chief cause for the continuing reduction of livestock during the period that the Forest Service has been in charge.

The basis for the difference in viewpoint between the stockmen and the Service officials arises from the determination of when a range is overstocked. Sheepmen measure the productivity of a range by the flesh, growth, and wool it produces. The Forest Service, on the other hand, bases its opinion on the natural variety of plants, their normal associations and proportions, and the condition of the underlying root system.

Unfortunately the number of sheep cannot fluctuate up and down as the grazing varies with climatic conditions. The Forest Service therefore plans on safe maximum numbers for the bad seasons rather than for average or optimum years. This handicaps growers, for the number of lambs to be dropped in the spring is regulated by the breeding of the preceding fall, and no sudden increase is possible to meet unexpectedly favorable conditions. Most criticisms of the policy arise, however, when extremists hold control.

#### GRAZING ON THE PUBLIC DOMAIN

In 1905, at the request of the Public Lands Commission, Frederick V. Coville and Albert F. Potter surveyed the public land problem through a questionnaire, and from it developed<sup>22</sup> proposals for federal regulation of grazing on the public domain. All preceding withdrawals for federal administration had

<sup>22</sup> Frederick V. Coville and Albert F. Potter, "Grazing on the Public Lands," *Bulletin 62*, Division of Forestry, U. S. Department of Agriculture.



FIG. 122a—(Left) Yearling Targhee ram with thirteen months' wool (p. 568). FIG. 122b—(Below) Mature Targhee ram.

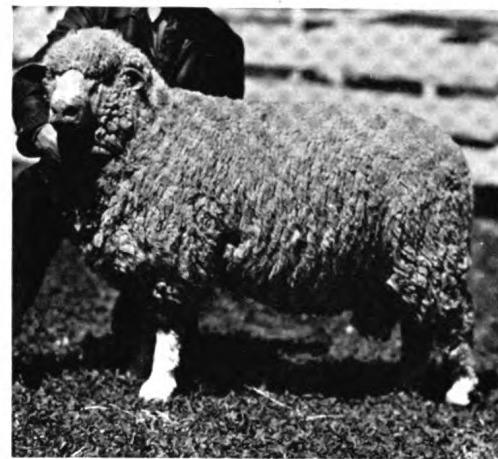


FIG. 122c—(Below) Ten-months Targhee ewe lambs. (United States Sheep Experiment Station, Dubois, Idaho.)



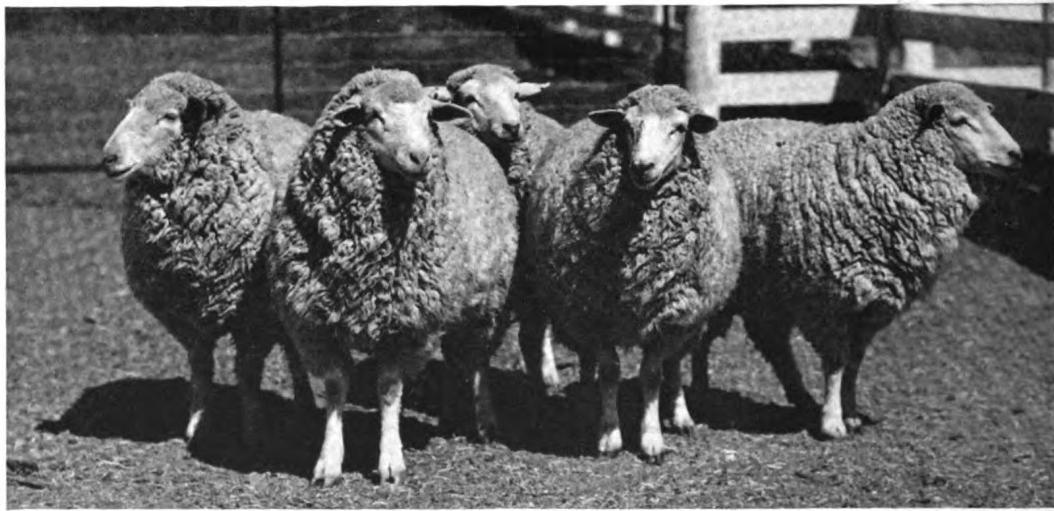
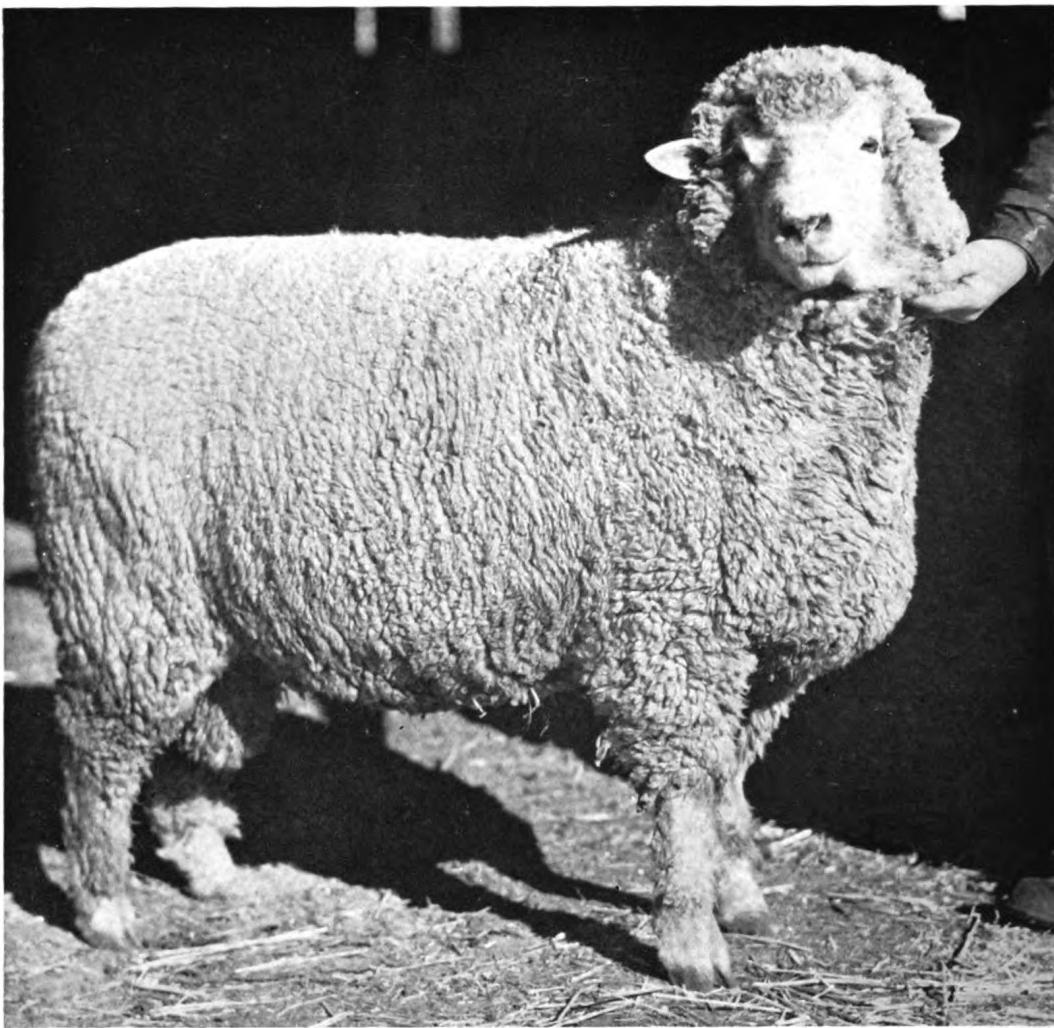


FIG. 123a (*Top*)—Mature Columbia ram (p. 566). FIG. 123b (*Bottom*)—Five yearling Columbia ewes, range-grown. (United States Sheep Experiment Station, Dubois, Idaho.)

treated grazing as a secondary matter, but Coville and Potter emphasized its prime importance. The nation, however, was not ready and it was 1934 before this purpose was accomplished with the Taylor Grazing Act. The widespread drouth of that year speeded the establishment of its administration.

When the Act was passed, more than a quarter of a billion acres had been set aside for National Forests, Indian Reservations, National Parks and Monuments, Reclamation Projects, and other miscellaneous purposes. Only 162 million acres remained to be administered for grazing. This Act, "in order to promote the highest use of the public lands pending their final disposal," authorized the Secretary of the Interior to create grazing districts, to withdraw public lands within them from entry for homesteading, to formulate rules and regulations to restore the ranges, to issue grazing permits for livestock, to establish grazing seasons, to provide or authorize range improvements, and to charge fees for the grazing privilege.

The Taylor Grazing Act recognized pre-existing use of the public lands by livestock. It made the right to graze and the size of flocks an owner could run a function of the privately owned property of each stock raiser. The number of sheep or cattle which each owner was allowed to turn on the public domain depended on the ability to integrate the public and privately owned lands as a unit, the capacity of the privately owned land, the availability of headquarters, and the meadows, feed crops, and water which were controlled privately, all in relation to a sound plan of management. This principle was known as "Commensurability."

Lands within the Grazing Districts were admittedly unsuitable for cropping, farming, or other use under the Pre-emption Act of 1841, the Homestead Act of 1862, the Timber Culture Act of 1873,

the Desert Entry Act of 1877, the Timber-Stone Act of 1878, the Arid Lands Act of 1894, the Kincaid Act of 1904, the Enlarged Homestead Act of 1909, or the Stock-raising or Grazing Act of 1916. The productivity of these lands was presumed to be so low that private owners could not afford taxes even on the lowest valuations.

#### THE DIVISION OF GRAZING

A Division of Grazing was set up in the Department of the Interior and directed to adjust fees so that its costs and methods of grazing would parallel those already established in the livestock business. At the start stockmen resisted certain steps involved in setting up the Grazing Districts—based largely on the fear that each might suffer in comparison with his neighbor. Stockmen who believed they had adequate commensurability were occasionally squeezed out of privileges they had previously enjoyed. All criticized the delays in issuing regulations and felt that this indefiniteness made it impossible to plan operations as far ahead as necessary for efficient operation.

The three requisites written into the Taylor Act were to "stop injury to the public grazing lands by preventing overgrazing and soil deterioration;" to "provide for their orderly use, improvement and development;" and to "stabilize the livestock dependent upon the public range." It was obvious that "orderly use, improvement and development"—the second objective—would also meet the first objective. It was also probable that its accomplishment would assist the third objective of stabilizing the livestock industry dependent upon the public range.

At the start the new agency had an uphill fight in its own Department of the Interior. The Public Land Office did not relish its loss of authority over the grazing lands, and the National Park Service was suspicious of livestock en-

croachments. A memorandum of agreement dated February 28, 1940, had to be signed between the latter two before cooperative steps could be taken. Similar difficulties developed with the Reclamation Service and the Indian Service, largely from contests over authority or jurisdiction. Some friction also developed with the Forest Service, the Soil Conservation Service, and the Biological Survey—all then a part of the United States Department of Agriculture.

Nevertheless, the Grazing Service fitted rapidly into the picture. By 1938 there were fifty grazing districts and 19,342 licenses, with permits for 9,221,696 sheep and 1,605,566 cattle. The response by sheepmen had been almost instantaneous. In 1935, the first year, 6,739,080 sheep were in the new Grazing Districts; in 1936 (the year of the second drouth), there were 5,840,704; and in 1937, 9,041,771.

In early 1940, an agreement was reached between the Grazing Service and the Bureau of Reclamation whereby lands under reclamation withdrawal lying within grazing districts could be administered by the Grazing Service. Nearly eleven million acres out of twenty-one million so withdrawn were thus made available. Taylor Grazing Act provisions governed the administration, and fees on the reclamation lands were placed at the same level as elsewhere in the grazing districts. These fees were one cent per head monthly for sheep and goats, and five cents per head for cattle and horses. While crossing federal range in transit to other areas, one-twentieth of a cent daily was charged per head on sheep and goats, and one-fourth of a cent per head on cattle and horses. Twenty-five per cent of the fees was retained by the Federal Government in Washington, 25 per cent was returned for range improvement to the Grazing Districts from which the fees came, and

50 per cent was turned back to the states for distribution among the counties in which the fees were collected.

#### CARRYING CAPACITY OF THE RANGE

The first problem faced by the Grazing Service was the livestock-carrying capacity of the lands. How many livestock could be permitted on the Grazing Districts without causing overgrazing? This required more knowledge of the public range than was then available. It was also necessary to itemize information on the private lands on which public land use was based, before permanent decisions could be made. Hence, the first move was to initiate range surveys, to determine topography, character of soil, density and variety of forage plant cover, water supply, and existing range improvements.

But some of the more theoretical men in the Grazing Service seemed willing to let livestock starve while they calculated permits. Naturally the stockmen were impatient, and insisted that practical knowledge based on experience could be used temporarily. Neither sheep nor cattle could live long enough, without using the public range on which they had previously subsisted, to permit completion of theoretical computations.

Finally a system of temporary permits was adopted. Stockmen disliked the resulting insecurity of operation, but did not object openly until the Grazing Service attempted to collect grazing fees on the temporary permits. The law did not provide for this action, and deep resentment was stirred when the Service initiated trespass suits against stockmen who had not paid the fees. While these suits were under appeal by the Grazing Service, the Nevada State Cattle Association challenged in Federal Court the legality of fees assessed against a temporary, revocable license.

The case was based largely upon the

fact that the rules and regulations, established "as matters of temporary expedience," were not in accord with the provisions of the statute. Fees were *uniform* though they could not be made so legally. The law required annual payment of "reasonable" fees and no "reasonable" fees could be *uniform* when grazing areas varied so in value, when costs of herding and other maintenance increased the farther the animals had to travel to feed, and when the gain resultant from grazing conditions varied so at the end of the season.

The Court decided in favor of the stockmen. This immediately quashed a long list of threats of prosecution, employed to coerce range users into payment of temporary fees. This decision in 1940 hastened practical regulation under the Taylor Act, although it left a feeling of unfair treatment among men whose fees had not been returned.

Even this decision did not make everything rosy. At the national sheep and cattle conventions of January, 1940, it was complained that the government, under Section 15 of the Taylor Grazing Act (public lands suitable for grazing, but not in grazing districts), was improperly diverting public lands into "marginal" areas without regard to the effect on established land and livestock units. Yet, because the Taylor Grazing Act charged the Grazing Service with the missions of facilitating grazing, preserving it, and getting the greatest returns from it, more rapid strides have been made by it than by the other services dealing with grazing.

#### DISTRUST OF GRAZING POLICIES

Chief factors in creating distrust of officials identified with government lands, have been delays (based on theoretical and abstract grounds) in settling important questions, or the inherent unwieldiness of government action.

Many sheepmen and cattlemen have believed themselves as earnest as government officials in their desire to provide good management for the grasslands. During the first half-century of the western range they never had an opportunity for long-term planning, but through insecurity operated on a short-term basis. They were never allowed officially to take effective steps to protect their ranges, nor were they given incentive for good practices. In fact, the absence of legal tenure stimulated the worst practices.

Producers maintain that their goal of converting grass to human food is far more practical than that of Washington officials trying to restore some naturalist's ideal. These officials have never been under compulsion to operate at a profit. Growers, on the other hand, have desired luxuriant ranges to last indefinitely because their livelihood depended on them.

In fact, stockmen suspected the theoretical type officials of professional exaggeration when they repeated alluring descriptions of the range in pioneer days. It is true that early travelers left enthusiastic reports of waist-high to shoulder-high herbage at particular places (and in many places they still exist). But in those early days every adventurer tried to tell taller tales than Jim Bridger, and most of them quite excelled the boosters in modern chambers of commerce. Many of the early explorers—Lieutenant Pike in 1805–07, Major Long in 1819–20, Reverend Parker in 1836, Father de Smet in 1841–42, General Palmer in 1845, and Lieutenant Abert in 1846–47—complained of limited grazing and parched ranges, and these complaints preceded the overgrazing of the ranch bonanza days by four to eight decades. Mollin writes:

It is evident that many early day expeditions, even though far from the beaten track, failed

to find the mythical virgin range of luscious grass we have been led to believe existed.<sup>23</sup>

Practical stockmen know that seasons vary greatly, that not all ranges remain in top condition throughout the season, and that the great herds of bison, deer, and antelope described by early travelers (authoritative estimates of bison often reach thirty million head) grazed just as avidly as did sheep, cattle, and horses thereafter. Probably the exaggerations of range cover and of numbers of game fell in the same class. However, there are journals of travel in the Southwest, especially along the Gila and Little Colorado, which refer to readily recognized places where sheer barrens and piles of rocks exist today, but where Pattie<sup>24</sup> and Beale<sup>25</sup> respectively reported abundant herbage.

Writers of forty years ago liked to infer that denuded range was characteristic of the West as a whole. In addition their imagination was unlimited in describing range luxuriance before the stockmen arrived. Ray Stannard Baker wrote in 1902:

At first there had been enough grass to support one steer to every two acres of land; in half a dozen years a steer did well to make his living on five acres. . . . So great was the struggle for new territory that whole herds of cattle sometimes went twenty miles or more to water and then back again, galloping every step, and working hard between times to get enough from the failing ranges to keep life within their lean carcasses. . . . Today there are many parts of the range that will not support . . . one steer to every sixty-four acres, and it is a good range indeed that will feed a steer to every twenty acres. There are whole ranges in Texas, New Mexico, and Arizona, once rich beyond belief, that are completely deserted, and given over to the desert. . . .

When the rich grasses began to give out, the black, white, and crowfoot gramas, the curly mesquite, the sedges, and the needle grasses, which were wonderful cattle-food, the rangers conceived the idea of introducing more sheep, knowing that sheep will thrive where cattle starve. So it happened that vast flocks appeared on the range, burning across it like so much live fire, the sheep eating out the vegetation to its very roots.<sup>26</sup>

Wool growers do not accept the implication that flocks were responsible for the contrast between the exaggerated virgin range about which Baker became so enthusiastic and the current "vegetation (eaten out) to its very roots." When the drouths of 1934 and 1936 appeared, the Forest Service published a pamphlet known to most stockmen as the "Green Book" (Senate Document 199, Seventy-fourth Congress, second session, 1935) in which overgrazing was charged with being a principal cause of deteriorated range conditions. Not only did the wool grower deny this, but the rains of 1937 produced sufficient recovery<sup>27</sup> that the practical sheepmen felt justified in their belief that such deterioration, as occurred during the decade immediately preceding the drouth, came from lack of rainfall. For example, Charles Redd said:

We cannot deny that overgrazing exists in some areas. By and large, however, the depleted condition is a result of prolonged drouth. . . . Weather Bureau records, as well as other rainfall records, prove the fact that drouth periods are followed by periods of abnormal rainfall. We are now in the longest drouth stretch of record. . . . The biggest single factor is rainfall. During the past two years it has been demonstrated that the desert ranges come back quickly when rain falls.<sup>28</sup>

Naturally a broad rift existed between sheep association leaders and the officials responsible for the "Green Book."

Flockowners also resented the conservationist's idea that sheep are the worse offenders in overgrazing, and that the modern sheep owner should, by

<sup>23</sup> F. E. Mollin, "If and When It Rains," *Bulletin, American National Livestock Association*, 6.

<sup>24</sup> Pattie, *Personal Narrative of a Voyage to the Pacific and in Mexico*, 87-108.

<sup>25</sup> Edward Fitzgerald Beale, "Wagon Road From Fort Defiance to the Colorado River," *House Executive Document 124*, Thirty-fifth Congress, First Session, 1858.

<sup>26</sup> Ray Stannard Baker, "The Tragedy of the Range," *The Century Magazine*, 4, No. 4 (August, 1902): 539.

<sup>27</sup> Mollin, "If and When It Rains."

<sup>28</sup> *Ibid.*, 80-81.

restrictions placed on him, bear the burden of range restoration. Under the best attainable management, they know cattle damage a range as much as sheep, for a flock under the control of a herder can utilize the range according to a pre-arranged plan. Cattle, on the other hand, congregate in the most accessible areas, especially the valleys and easily ascended ridges, and on the most palatable grazing. When sheepmen have been singled out for "cuts for distribution," or for range protection, they naturally assume that the government wishes to punish them all at once for the accumulated abuses of the generations, regardless of whether they were caused by inadequate laws, dry farmers, or consciousnessless lumbermen.

It is true that livestock have caused great damage in the Southwest. Navajo herders have pulverized range to dust around their hogans and corrals, and the old trails along the Gila and the 35th parallel have suffered greatly. Spots equally denuded could be pointed out elsewhere in the West. On the other hand, in south central Wyoming, there exists a great basin of two and a half million acres without outside drainage. Here it may be pointed out that there is no important accumulation of silt at the low point, indicating that the runoff has been small. There is some relation of runoff to variations in the range vegetation, and in large areas in Montana, Wyoming, and Colorado, it has normally been sufficiently abundant to retard erosion.

Six years of experiments at the Northern Rocky Mountain Forest and Range Experiment Station indicate that the significant changes in range vegetation have been quite uniform in pastures stocked at different degrees, with all variations related to the amount of rainfall far more closely than to the degree of grazing. However, the density of palatable grasses that existed before the

drouth of 1934, was not restored until ten years later.

#### INADEQUATE LAND POLICIES

The crux of the western range problem lies in the failure of our public land policies to recognize the economic value of the stockman's making a living by grazing livestock, and instead to establish all qualifications for western lands on the basis of the farmer who tills the soil. The pastoral life, which is older than Abraham or Lot, was unable to develop successfully while acreage was the unit of consideration instead of production. Vass states the issue:

If 160 acres in the Midwest would produce enough feed to support one hundred animal units, then the size of the unit for our western grazing lands should have been of sufficient acreage to support a similar number. The emphasis has been placed on farming, with too little consideration given to herds and flocks.<sup>29</sup>

If a homesteader was willing to farm certain public land, he could acquire title to it. But if a rancher desired to graze it, he could not gain title because he could not acquire a satisfactory unit and had to submit instead to federal control and management. On very little homestead land now remaining does the farmer have a chance of making good, though he is lightly restricted by the government. The rancher has an excellent chance, but the government keeps strings on him at all times.

Most of the West believes that the rancher, if he had ownership on a reasonable basis, is as entitled to manage and control range lands as the Midwest farmer to manage and control farm land. Due to assessed valuations, taxes, and other costs, ranchers can seldom afford to own land where more than seven or eight acres are required per ewe or more than forty acres per cow. This limitation,

<sup>29</sup> A. F. Vass, "Control and Value of Western Grazing Lands," 3.

however, is set by the fact that lightly productive land can be leased more cheaply from the government than it can be owned.

The usual argument supporting the official view is that ranchers cannot be trusted with such land, because the stockmen abused it and despoiled the herbage during the days when public land policies made it necessary for the first comer to grab all. But even in those days the individual rancher had less actual control over the land than was exercised by the government, and he recognized, before the experts, that the point of diminishing returns on the range was reached long before the plant cover was endangered. Abstention, however, gained him nothing in those days of overstocking—whatever grass he failed to use someone else captured, and by government consent.

Everyone recognizes that the grazing value of lands varies, and that the cost of using such land should be adjusted so that the cost of gain should average about the same on the animals running the range. Yet there are seldom as great differences in the productivity of the range as are reflected in the costs of running an animal throughout the season. Vass calculated these costs on an animal unit basis for twelve months, although some of the lands, as the National Forests, are available for only part of the year. The animal unit is based on the steer, and six sheep are considered to use the same amount of feed in his calculations. His figures<sup>30</sup> follow:

It is obvious that discrepancies in fundamental costs such as these would keep the western livestock industry on an unsound economic basis, for grazing may cost one rancher three to eight times as much as another. Furthermore, none of these controllable costs bear any direct relation to costs of eastern livestock production.

#### PRIVATE OWNERSHIP

Federal administration and leasing of public lands takes the majority of ranchers out of the ownership class, and makes tenants of them, with all the disadvantages to personal responsibility that go with the tenant status. The greatest danger from overstocking and grazing depletion is on the investment-free, tax-free lands where the fees are lower than private costs, due to government administration without regard to productive value per acre. A grower can never feel the same responsibility to such lands that he would to his own property.

The number of livestock a rancher runs is not based on his public land leases but on the feed resources of his privately-owned land. Ranchers cannot afford to own the poorer public lands, hence the excuse is offered that the Federal Government must control them. The facts are that ranchers cannot afford to own them at the prices the government demands, or at prices of nearby privately-owned property bearing artificial values based on joint use with government-

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<sup>30</sup> Vass, "Control and Value of Western Grazing Lands," 6.

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Control Authority	Cost Per Month or Per Acre	Cost 12 Months' Feed
Public Domain—Taylor Grazing District.....	5c per month	\$ .60
Public Domain—Federal Leases.....	50 A. @ 2.4c	1.20
Public Domain—National Forest.....	15c per month	1.80
Federal—Indian Service.....	Subject to bid	2.00
Federal—Repurchased Grazing Districts.....	17c per month	2.04
State Owned—Leased Land.....	50 A. @ 7c	3.50
Privately Owned Land (Value \$1.51, Int. 5%, Taxes 2%).....	50 A. @ 10.57	5.29

owned lands. These privately-owned lands carry their natural share of the investment and tax loads, plus their share of what the federally-owned land would carry if they were privately owned.

Ranching in the West will stir problems as long as the wide variety of federal, state, and private lands are under such conflicting and overlapping controls. As a rule, ranchers would rather own their land and have complete management of it, so as to make the most efficient use of the feed, as well as to make long term plans of operation. They often obtain title to property on which the taxes alone may be double the federal grazing fees, so as to obtain the freedom and security that comes with deeded property. Vass points out that

Deeded land is something in which they can place their savings for old age, or for their children. The operator who has a small investment in lands and relies on federal permits assumes the more speculative type of ranching, trying to make enough that year so that, should he be turned off the reservation, he would be able to retire.<sup>31</sup>

The important issue from the stockman's point of view is not whether more public lands should be made readily transferable to him for private ownership—he is certain that they should be privately owned—but whether the transfer should be made directly to his ownership or through intermediary transfer to the states.

#### GAME ON THE PUBLIC LANDS

Since 1900 a secondary source of dispute within the public lands has been the competition between domestic herbivores and wildlife. Game has been conserved until an actual surplus of wild animals has raided or destroyed many important grazing sections. The principal cause has been the concentration of the wildlife on limited areas. Herds built up faster than plant life could increase to support them, especially in winter. Game that grazes the National

Parks usually has no natural winter feed and either must be fed supplementally or allowed to migrate elsewhere. Neither step solves the problem, but merely postpones it or aggravates it.

The average American, schooled in the concept that our wildlife is doomed to extinction, finds the idea of a game surplus paradoxical. But National Forest officials have estimated that between 1908 and 1941, big game animals on the Forests doubled every ten years. Between 1924 and 1941, they increased from 693,000 head to 2,100,000 head. This latter figure provided an average of six larger game animals per square mile within the forests. Three-fourths of the big game animals in the United States make their home in the National Forests at least part of the year.<sup>32</sup>

In many forests, sheep and cattle grazing have had to be reduced or prevented because of the excessive numbers of big game. As a specific example, the Kaibab National Forest was stripped clean by deer in 1924 and again in 1931. All of the browse was consumed, while the shoots and bark from the hardwood trees, and the needles, twigs, and cones from the evergreens were eaten as high as the deer could reach, standing on their hind legs.

The Kaibab Plateau is unusual because of its isolation. It is administered by two branches of government with contrasting policies—the National Park Service on the southern part of the plateau, trying to preserve natural conditions, and the Forest Service in the northern part, trying to correlate deer, cattle, and sheep numbers with the most efficient utilization of forage resources.

Mann and Locke<sup>33</sup> state that from

<sup>31</sup> Vass, "Control and Value of Western Grazing Lands," 15.

<sup>32</sup> *Information for the Press*, U. S. Department of Agriculture, September 3, 1941.

<sup>33</sup> W. G. Mann and S. B. Locke, *The Kaibab Deer*.

1887 to 1889, at least two hundred thousand sheep and twenty thousand cattle were grazed there, in addition to deer, feral horses, and burros. Forage declined under such intensive use and numbers were cut sharply. In 1893 the area was established as the Grand Canyon Forest Reserve, and the killing of deer prohibited. Four thousand deer were estimated for the area in 1906, and these increased to nearly a hundred thousand in 1924.<sup>34</sup> Sixty per cent of the herd died of starvation in the winters of 1924-25 and 1925-26, and the summer drouth of 1931 halved the estimated twenty thousand head still remaining.

The high rate of reproduction for deer is blamed on the removal of the normal checks. Stockmen feel that the ban on hunters was the principal cause, and conservationists charge it to the removal of predators; some 816 mountain lions, 863 bobcats, 30 wolves and 7,388 coyotes during the period 1906-39. More than twenty-seven thousand deer were taken out by human agencies in this period, and at least a hundred thousand died of starvation. No bias-free measure exists to test the basic causes for the overpopulation, so blame is assessed according to personal inclination. In the meantime, sheep grazing dropped from twenty thousand head in 1904 to around five thousand in 1908, and gradually fluctuated about a level of two to three thousand head between 1910 and 1925. Since then the numbers have been still smaller.

In the Asotin area of the Umatilla National Forest in Washington, fifty-seven elk were released in 1913, under the protection of forest regulations and state game laws. Thirty years later seven thousand head were in this and nearby forest areas, and more than four thousand had been killed by hunters during the intervening period.<sup>35</sup> Twenty per cent more elk were on Forest Ranges in

central Washington in 1943 than there had been cattle under maximum permits. In spite of all control measures, deer and elk increased 9 per cent on National Forests from 1940 into 1941, or 170,000 more animals than were taken by hunters plus natural losses.<sup>36</sup>

Statistics on wildlife population have been available longest on National Forests. In 1944 deer exceeded all other big game animals, numbering 1,992,000 head or 85.5 per cent. Elk totaled 148,000 head; black bear, 78,000; antelope, 52,000; mountain goats, 19,000; bighorn sheep, 9,000; moose, 8,600; javelinas or peccaries, 15,000; grizzly and Alaskan brown bear, 6,200; and wild boars, 936. The latter, of course, are not native, but were imported in the early thirties and now roam forests in the Appalachians and the Los Padres National Forest in California. Between 1921 and 1941, antelope increased 730 per cent; deer, 260 per cent; elk, 190 per cent; and moose, 79 per cent. While the base figures were not large enough to be statistically important in the case of moose, they were significant with deer, elk, and antelope, and constituted a heavy utilization of the grazing capacity of western lands.

Wildlife figures are also available elsewhere;<sup>37</sup> on Indian lands, in the National Parks, on the Grazing Districts, and on western private and state-owned lands. As might be expected, there are nearly four times as many antelope in the areas under the Department of the Interior in the National Forests; also

<sup>34</sup> D. Irvin Rasmussen, "Biotic Communities of the Kaibab Plateau, Arizona," *Ecological Monographs*, July, 1941, 3 (3) :236-37.

<sup>35</sup> Allen Rogers, Ellensburg, Washington. Address before convention, Washington Cattlemen's Association, Asotin, Washington, May 14, 1943.

<sup>36</sup> *Ibid.*

<sup>37</sup> Hartley H. T. Jackson, *Big Game Resources of the United States, 1937-42*, Research Report 8, Fish and Wildlife Service, 1944, 7-12.

more desert bighorns and peccaries, but there are fewer of other species. Private and state lands have more white-tailed deer and peccaries than federal lands, and nearly as many antelope and black bears. Sixty per cent of the game on the National Forests winters on the public domain or on private ranges.

The Grazing Service has set aside a number of wildlife refuges and game ranges, eight or ten of the latter totaling around five million acres, on which elk, buffalo, antelope, mule deer, white-tailed deer, bighorn sheep, and peccaries are pastured. But these are not sufficient to care for game herds in the worst seasons. Nearly every western rancher puts up some hay for wild animals roaming his range, in order to protect the winter grazing he requires for his own flocks and herds.

On the Z-Bar-T Ranch in Wyoming, with eighteen to twenty thousand sheep and three thousand head of cattle, it was necessary for years to cut enough irrigated and wild meadow hay to take care of a herd of approximately three thousand antelope that ranged below the great Absaroka wall bordering the east side of Yellowstone Park, or else submit to predatory grazing by the game. In one corner of Kittitas County, Washington, claims from ranchers for damage to their haystacks exceeded by \$5,500 in 1942 the federal money designed to take care of such losses, and much more damage was done to private sheep and cattle ranges without recompense at all.

These oversized herds of elk, deer, and antelope could be kept under control if the existing surplus and the bountiful annual increase could be taken by properly licensed hunters. Under the protection program enforced by overzealous scientists, sportsmen, conservationists, and politically constituted State Game Commissions, the numbers of game animals have literally burst from control.

Even by constantly reducing economic use, both land and feed have been insufficient in many sections, and game has increased more than livestock could be reduced.

The Forest Service is thoroughly cognizant of the problems involved in conflicts between domestic livestock and big game. Where ranges are overstocked, the policies applied in reduction are determined by the amount of damage caused by each class, and the relative local importance of domestic livestock and big game. Every attempt has been made to work out reduction programs in cooperation with state game officials, livestock associations, and other affected agencies or organizations.

A sound program of game management could be readily installed, under which the inferior breeding stock among the big game animals would be removed so as to produce the same selective effect that a ranchman obtains in culling his flocks and herds. The resultant animals would provide better sport for the hunter and would be more resistant to drouth, cold, some forms of disease, and various climatic hazards.

Uncontrolled herds of big game are dangerous from an economic standpoint, since they provide pools of infection for many diseases affecting domestic animals. Elsewhere in this volume<sup>38</sup> there appears the record of herds of deer and other ruminants in spreading foot-and-mouth disease in California in the twenties. In 1944 the American Veterinary Medical Association at its annual convention protested against economic loss offsetting the beneficial value of wildlife in many localities. It also pointed out:

There is no public organization in a position to support adequate, widespread research on diseases of wildlife. . . . Increasing numbers of

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<sup>38</sup> See page 466.

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wild species serve as reservoirs of infections transmissible to domestic livestock and human beings. . . . Large sums of tax money (have been spent) to eradicate brucellosis in domestic cattle, while . . . large sums (have also been spent) . . . to maintain a reservoir of this disease in National Parks and game preserves. Diseased buffalo from these preserves are moved indiscriminately across the country without regard to sanitary laws governing the transportation of diseased animals. . . . The interrelationship of diseases of wildlife to those of domestic livestock and man requires that all branches receive collateral study.

The Forest Service approximates the value of the big game, wildlife, and fish resources on the National Forests at more than a hundred million dollars, based on what sportsmen are willing to pay for guns, ammunition, hunting and fishing licenses, expense of travel and camping, and general outlay. At least 714,000 big game hunters, 302,000 small game hunters, 12,000 trappers, and 2,626,000 fishermen used the National Forests in 1940.<sup>39</sup> Regardless of the economic view of using the National Forests for sport rather than production, the money spent by sportsmen is of importance from the standpoint both of politics and tax support.

Where the dividing line should be drawn between social and recreational value of wildlife and utilization of land for food production, is highly debatable. The committee of the American Veterinary Medical Association reporting on wildlife diseases said in 1944:

Ostensibly the chief value of wildlife is for recreational purposes. Modern limitations on hunting, with restricted open seasons and high license fees applying in some states to the hunter's own premises, and with unreasonable protection to many forms which have become pests, make the recreational feature of questionable importance. The situation has resolved itself largely into one in which only certain classes of people with abundance of leisure and money may avail themselves of the sport of hunting.<sup>40</sup>

For many years the sportsmen's associations urged the President, the Congress, and the Forest Service to stop sheep and cattle grazing on the National For-

ests. The sportsmen had the best of the argument politically because the public took the impassioned oratory of game conservationists at face value. Livestock grazing was regularly charged with decreasing the number of game, but stockmen furnish feed and provide enough salt, in addition to that required for their flocks and herds, to care for the herbivorous animals that trespass their ranges.

One great difficulty in achieving practical game control lies with the so-called "barber-shop hunter and pool-room fisherman" who wants to step into his automobile after an early dinner, find game or fish, and take home trophies or food before dark. Sheep and cattle may intervene between such men and the objects of their chase, so the stockman becomes a convenient scapegoat.

Not all of the argument favors these local hunters. Many of them are predatory in their actions, and their careless and destructive habits stir up constant trouble. Fence and corral gates left open allow sheep, cattle, and horses to escape or to mix, while livestock are frequently killed, either mistakenly or wantonly, without apology or restitution to the owners. A fine pedigreed American Saddle Horse belonging to a Montana owner was shot at night, in his orchard only a few hundred feet from his house, by a mischievous or ignorant hunter who was passing by automobile on a nearby highway. Sheep, calves, cattle, and horses assume strange forms after dark to excited hunters from cities and small towns, and many who would not fire at a serenading tomcat will see deer in calves, coyotes in sheep dogs, and elk or moose in cattle and horses.

The chief difficulty in solving the game question lies in the lack of knowl-

<sup>39</sup> *Information for the Press*, September 3, 1941.

<sup>40</sup> *Report of Committee on Diseases of Wild Animals in Captivity*, American Veterinary Medical Association, 1944.

edge of the relative capacities of winter and summer range. In winters of heavy snowfall the suffering and slow starvation of elk is most inhumane. Hundreds of them die, their paunches filled with woody pulp—utterly devoid of feed value—easy prey to cold, disease, parasites, and predators. More and bigger reserves do not solve the problem, for the resources of the summer range always exceed those of the winter range, and man would soon have to supplement the winter range or let the rigors of natural selection be enforced.

Gradually the friction between the sportsmen's and stockmen's organizations is diminishing, as contacts increase and each comes to understand the other's problem, but the best education has been afforded by forest rangers who have conducted sportsmen, in winter or summer, out on the game ranges themselves, so that they can observe the actual conditions with the changing seasons. Also some disputes have been avoided by grazing the flocks and herds away from the spots most accessible to hunters and other recreation seekers.

One of the sorest spots with the flock and herd owner has been the passage of laws and the establishment of regulations that prevent him from protecting his own animals, their ranges, and their stored feed. In Montana in 1940, a rancher named Rathbone was haled before the court by a game warden for killing an elk in contravention of the law. This was a typical case, characteristic of hundreds of similar ones in many parts of the West. Rathbone maintained that the elk were destroying his privately owned grazing and his stored feed, that he had made repeated efforts to obtain relief through the State Fish and Game Commission without success, and that he finally killed the elk to protect his property.

The Court held that a man had the right to protect such property by killing animals that injure or destroy it, although this right could not be used to kill animals out of season without clear-cut evidence of substantial damage. It stated that each case had to stand on its own merits, and that it was the function of a jury to determine whether a reasonably prudent person, under similar circumstances would have taken similar action.

The Montana Woolgrowers' and Montana Stockgrowers' Associations, which intervened, declared that stockmen did not want to sanction the violation of game laws by persons looking for an excuse to hunt game out of season. The two associations maintained that their members were as interested in game, and in hunting as a sport, as were the sportsmen or game wardens. But where elk or other game regularly pastured on a growers' land, broke down his fences, destroyed his haystacks, and made themselves a continuous nuisance, the rancher should have the right to protect himself against them.

\* \* \*

Progress in solving the public land problems lags behind the necessities of western American life, although settlement of the grazing question is gradually being accomplished. But the issues of public versus private ownership of overlapping federal and state authority, of bureaucratic dominance and jealousies, and of true states' rights and independence are far from clarification. From the practical viewpoint of the sheepman, it is often difficult to discern where the division line can be drawn between broad principles of national welfare and the urgent desires for bureaucratic power and political control. The public lands still provide the most serious question in western husbandry.

*A sheep just oozes out a stink  
That drives a cowman plumb to drink!  
Its hoofs leave flavors on the grass  
That even make the old cows pass. . . .  
Sheep ranges, cattle sure won't graze,  
But—cowboys hate sheep anyways!*

—Frank Benton, "How I Love Sheep"

♦ 23 ♦

## Cattle-Sheep Wars

THE EXPANSION of the western livestock industry quickly led to conflicts over range rights, and to frequent clashes between sheep and cattle raisers. Until the late sixties the spread of flocks was retarded by limited transportation for wool to the eastern markets. By 1870, however, several railroads had reached the Rocky Mountains or were under construction. The Union Pacific was losing its position as sole transcontinental route, through the projected rights-of-way for the Southern Pacific across New Mexico and Arizona, and for the Northern Pacific westward from St. Paul. Sheep raising then became more attractive than cattle raising. A relatively low investment was required to establish range flocks, and the expense of handling was trifling as compared with later periods.

In theory the public domain was open to all. But by custom, range rights depended on priority in occupancy, and the majority of stockmen in an area recognized established operations. The cattle drives to the territories preceded the sheep drives from the Coast. Great cattle ranches were located on the choicest areas, clear to the Rockies, before the seventies were well under way. Near the railroad terminals, and for miles back, the water rights and grass were held by cattlemen. As first comers, they sought to maintain their occupancy

against all intruders, regardless of whether the latter owned horses, cattle, or sheep, but the efficiency of the latter species in taking over the grass brought flockowners into particular disfavor.

Sheep cropped the range closely, and when too large a number were crowded together, or when they were held too long on one area, they ate into the crowns of the grass and trampled the remainder into dust or mud. Areas overgrazed by sheep became practically bare, and during dry weather could not recover. Furthermore, sheep could move profitably onto rocky or sparsely grassed sections entirely unsuited to bovine occupation, while the cattleman remained helpless on the stripped lower ranges. Nothing angered the cattle owner more than the dallying of sheep, across range which he normally used, while they were en route to the foothills or mountain altitudes. Cattle needed the lower pastures, but the public lands were open to all, and stockmen recognized that the grass belonged finally to the man that got it.

\* \* \*

The idea that sheep produced a scent offensive to cattle came from the denuded pastures that sheep frequently left behind. Between the toes of sheep (and cattle as well) is located a deep glandular sac, having the form of a retort, with a small external opening. This produces

a sticky and odorous secretion. Perhaps this gland had a survival value from the standpoint of evolution, for it enabled a species with an adequate sense of smell to locate others of its kind.

But the cowboy chose to believe that when sheep walked the range they tainted the ground sufficiently to make the remaining grass unpalatable to cattle. This belief was fallacious, though persuasive. Only when separate men owned the cattle and sheep did a conflict develop, for when the same man owned both, the two species coordinated well. David Dickie<sup>1</sup> once said that when his cattle grazed the valleys and lower slopes, and his sheep ranged the timbered areas and the hill or mountain tops, approximately a 20 per cent greater return was realized than when either species ran the same range alone.

Earlier western organizations of stockmen made no distinction between cattle and sheep owners, but as antagonism developed, the sheepmen usually withdrew into associations of their own. They were in the minority in most sections and were always outvoted on matters of policy and range rights. In addition they were outnumbered on the range. Two or three men could care for large flocks of sheep, but it took several cowboys to handle a fourth as many cattle. When violence flared, the lone herder was overwhelmed.

The associations usually deprecated this strife officially but devoted it scant attention at their annual meetings. Cattle organizations insisted that raids on sheep camps were made by individuals beyond their control, and against the general policies of the association. Often the cattle associations offered rewards for the apprehension of those charged with violence or murder. But no one was arrested in the cattle country for running off sheep, and only in rare

instances were they convicted of their slaughter. When human deaths occurred, efforts were greater, but the larger proportion of tragedies were unpunished. There was sympathy for the cattlemen in most communities, due to longer tenure. There was equally a covert, and often outspoken, antagonism toward the sheep operator and his men.

As a general policy, information on sheep camp raids was hushed up. Each group considered the other the aggressor; the cattlemen *believed* so because the sheep "destroyed the range;" and the sheepman *knew* it because the cattlemen were the first to resort to violence. Flockmasters usually desired quiet, since details of conflicts hampered their opportunities to obtain herders, and disclosed their routes and locations. Cattlemen feared legal retaliation for their activities and the effect of their implication on their personal standing. An Evanston, Wyoming, banker presented the cattlemen's view as follows:

Cattle and sheep ranges are held by suffrage and custom. . . . A law of the Territory . . . prevents trespassing on occupied ranges near the settlements, but away from the settlement the shotgun is the only law, and the sheep and cattlemen are engaged in a constant warfare. . . . If the stockowners could obtain absolute control of their range under United States laws . . . peace and quiet would supersede the present turmoil.<sup>2</sup>

Yet public land control represented a banker's view more than that of the average cattle raiser. Frank Benton denounced certain cattle interests who were opposing leasing of the public domain:

Most numerous are men that run their cattle

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<sup>1</sup> A large sheep operator near Meeteetse, Wyoming, from 1890 to 1935.

<sup>2</sup> Edward W. Smith, Testimony before the public Lands Commission, *House Executive Document 46*, Forty-Sixth United States Congress, Second Session, 548-50, 554 and 561. Smith was a member of the firm Beckwith-Gwynn and Company, bankers, merchants, and cattle dealers, Evanston, Wyoming.

on the open range; and have succeeded so far in keeping a reasonable amount of range for their cattle by drawing deadlines, making threats, writing anonymous letters to sheepmen signed with a skull and crossbones, wearing black masks when a crowd of them visited a harmless Mexican to warn him to move his sheep, and once in a while to enforce obedience when sheepmen and sheepherders were so misguided as to insist on getting some of the government grass (that certainly was never intended by Nature for sheep) for their flocks. They have been obliged to shoot a few sheepherders, and club a few thousand harmless sheep to death with wagon spokes taken from the wheels of a sheep wagon. . . . I am frank to confess that I lack the courage to look a sheep in the eye and hit it over the head with a wagon spoke. I will admit it has no business being a sheep and, being a sheep, I will admit that it has no business eating grass away from a steer, but still I could not club it to death with a wagon spoke. I can understand how, in order to strike terror into the hearts of other sheepherders, a lot of cowmen, if they are drunk enough, could shoot an unarmed defenseless sheepherder if he was slow getting over the hill with his sheep, because a herder has always had some kind of warning to leave, but the innocent dumb animal had no warning. . . . This class of men has been able through these tactics to hold a certain amount of range for their cattle. But how much longer can they hold it? You may break the laws of the land for a while . . . but finally you have all got to come to the feed-rack of law and order, whether there is any fodder in it or not.<sup>3</sup>

#### STEPS IN RANGE CONFLICTS

The pattern of range wars was quite uniform. They started with warnings to the sheepmen to keep out. Then the cattlemen announced deadlines which sheepmen were forbidden to cross. For example, although similar activities had been taking place for two decades, a "Stockmen's Protective Association" was formed in the spring of 1901 by the cattlemen of the upper Shoshone Valley in Wyoming, with the ostensible purpose of dividing the range between the two interests. The method could scarcely be termed a "division," but rather the arbitrary setting aside of lands for the exclusive use of cattle. Deadlines were established and for two years sheepmen were threatened with violence and passions flared.<sup>4</sup>

Direct altercations between herders and cowboys were always the second development. Once emotions were aroused, the typical move was to attack the camps of sheepmen who dared to cross the deadlines. The form of these attacks varied. The least violence was occasioned by poisoning, and blue vitriol or saltpetre (the latter poisonous to sheep but not to cattle) was often spread in a narrow strip where sheep were expected to graze. *The Cheyenne Leader*<sup>5</sup> mentions a rancher near Laramie who found pinned to a board on the summit of the crest near the source of Horse Creek, a paper which bore the following notice:

"Sheepmen—Keep off these ranges.

(Signed) Salt Petre."

In many instances poisoned feed was thrown near the bedground so that the hungry flock would pick it up when it moved in the morning. Sometimes the feed was oats treated with strichnine, sometimes it was bran. In January, 1921, west of Craig, Colorado, N. N. Chapman and Isadore Bolten decided to throw their flocks together. Bolten had just purchased sixteen to seventeen hundred ewes,<sup>6</sup> while Chapman's band of another sixteen hundred head was at Lily Park, seventy-five miles west of Craig, on Bear (Yampa) River. When the partners arrived to merge the flocks, they found that Chapman's herder had been forced by cattlemen to hold his band on the bedground practically a month. While it was in a half starved condition, the cowboys had thrown poisoned corn where the sheep could get it, causing the death of about three hundred head.

<sup>3</sup> Frank Benton, Address, Convention American Cattle Growers' Association, Denver, Colorado, March 6, 1902.

<sup>4</sup> Briggs, "The Early Development of Sheep Ranching in the Northwest," *Agricultural History*, Vol. 11 (July, 1937):179.

<sup>5</sup> *The Cheyenne Leader*, February 27, 1895.

<sup>6</sup> Isadore Bolten, Rawlins, Wyoming. Interview with author, July 25, 1940.



FIG. 124—Cowboys Attacking Flock.

Such breaches of peace were less violent than the shooting or clubbing to death of flocks in corrals or on the bedgrounds. On August 24, 1905, about 10 P.M., ten masked men rode into the sheep camp of Louis Gantz on Shell Creek, forty miles from Basin in the Big Horn Valley of Wyoming, and shot, dynamited, or clubbed, approximately four thousand animals. A pair of horses was also shot, the herder's and camp tender's wagons were burned, and the grain, provisions, and other camp equipment destroyed. Most brutal of all, the sheep dogs were tied to the wheels of the flaming wagons and scorched to death. The Gantz herders were accused of moving their flocks to the Big Horns with unnecessary slowness, so that the grass was entirely consumed along the trail. When the camp was destroyed, the herders were warned to leave the country and never to come back.<sup>7</sup>

Some cowhands insisted that this type of attack involved too much work, so dynamite charges fitted with percussion caps were thrown into flocks feeding close together or massed in a corral.

One of the most diabolical attacks took place near the San Francisco peaks north of Flagstaff, Arizona, in 1884. Ten bands of sheep were camped near each other in an attractive natural park when there rushed across their bedgrounds a hundred or more wild horses with long rawhides dragging from their tails. Fifteen or twenty head were wearing huge cowbells around their necks "to encourage speed." They broke out of timber with cowboys in wild pursuit, yelling and shooting. The herders met the oncoming wave with rifle shots but this merely turned the horses to milling among the defenseless flocks. Twenty-five thousand sheep were thrown into a bleating, terrified mob. Hundreds were killed and maimed, and a week was required to re-group the disordered bands.<sup>8</sup>

A variation of these methods was the "rim-rocking" of a band. Taking advantage of the natural flocking instinct of sheep and their blind tendency to

<sup>7</sup> Natrona County (Wyoming) Tribune, August 25, 1905.

<sup>8</sup> Raines and Barnes, *Cattle*, 253-54.

follow their leaders, the camp raiders would start a flock toward the edge of a cliff, shouting and shooting until the flock was in a panic. Flank riders kept the band headed for the edge, and regardless of the reaction of the leaders when they faced the cliff, the sheep pressing behind would crowd them over. Once started, the remainder of the flock stupidly followed, jumping blindly to their deaths. Since sheep naturally grazed the rougher country, it was quite easy for those attacking a camp to find a place where this procedure could be followed. Montana cattlemen crossed the Wyoming boundary in 1904 and attacked the flock of George Crosby, apparently in retaliation for his grazing south of the Pryor Mountains just over the line in Montana.<sup>9</sup> About five hundred head rushed over a precipice into a deep gorge, where the animals were crushed to death.

Sometimes quicksands replaced the high cliffs. On the Little Colorado River in East Central Arizona in 1884, a party of cattlemen raided a sheep camp where two outfits were located. Well armed and well mounted, the cowboys swooped down on the surprised herders and tied them to trees. The river bottom was covered with a bottomless sand. In one great mass, four thousand head were crowded there to mire down and die.<sup>10</sup>

The most cruel method of attacking sheep was by the use of fire. It was conventional to burn the camp wagons and camp equipment, regardless of whether there were hazards to occupants. But the public was revolted when in 1889, during a raid on the sheep camp of John Jost in the Elk Mountain District (Carbon County, Wyoming), a sleeping child in one of the flaming wagons was barely rescued in time.<sup>11</sup> It suffered serious burns.

But setting fire to helpless sheep was even more barbarous. Early in 1887, twenty-six hundred head were burned in the corrals of Charles Herbert near

Tie Siding.<sup>12</sup> A few animals were killed and the fire was started. Then the sheep were crowded into the flames, igniting the wool, and the poor animals could not scatter within the confines of the corral. Most of them burned to death or were suffocated where they crowded together. Here again, the flocking instinct worked to the disadvantage of the sheep. But such cruelty was inexcusable, no matter what injustices the cattle mob felt were imposed on it.

#### FOOTLOOSE FLOCK OWNERS

Finally when cattlemen and established sheepmen by common agreement had come to respect each other's range on the public domain, there appeared tramp sheep operators, basing on nowhere, paying no taxes, buying few supplies from local merchants, and living off the community rather than with it. Roving "predatory" flockowners would mass their droves on weaker grasslands so that no local cattle or sheep could be grazed until seasonal rains fell again. Adding to the injury, drivers of big trail flocks, uninterested in grass along the route until the next year, would "pirate" the winter range of local ranchers, regardless of whether they were cattle or sheep owners. Writing of the Sweetwater Valley in 1882, John Clay<sup>13</sup> states that trail sheep "ate up most of the grass in the valley," while Governor Brooks<sup>14</sup> reports seeing bands from Oregon that left great barren areas behind. The *Natrona County Tribune* of August 12, 1897, reported half a million trail sheep from Oregon, Idaho, and Nevada entering the western boundary of Wyoming, and by October 14 detailed rough treatment

<sup>9</sup> *Wyoming Tribune*, September 10, 1894.

<sup>10</sup> Raine and Barnes, *Cattle*, 252.

<sup>11</sup> *Carbon County Journal*, Rawlins, Wyoming, January 8, 1889.

<sup>12</sup> *Ibid.* January 8, 1887.

<sup>13</sup> John Clay, *My Life on the Range*, 36.

<sup>14</sup> Bryant B. Brooks, *Memoirs of Bryant B. Brooks*, 197.

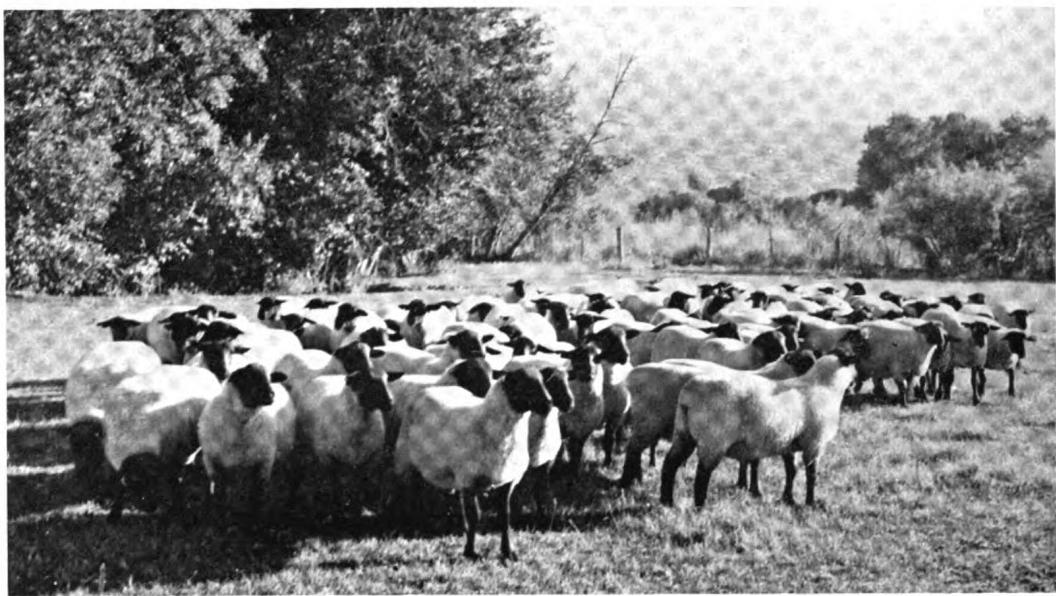


FIG. 125—Suffolk ewes in purebred band of Laidlaw and Brockie, Muldoon, Idaho (p. 565).



FIG. 126—Panama rams of Laidlaw and Brockie (p. 567).



FIG. 127a (*Left*) —Grand Champion Corriedale ram, exhibited by King Brothers, Laramie, Wyoming, at 1941 International Livestock Exposition (p. 565). Livestock Photo Company.)



FIG. 127b (*Right*) —Champion Corriedale ewe, a lamb exhibited by the University of Wyoming at 1935 International Livestock Exposition. (Livestock Photo Company.)

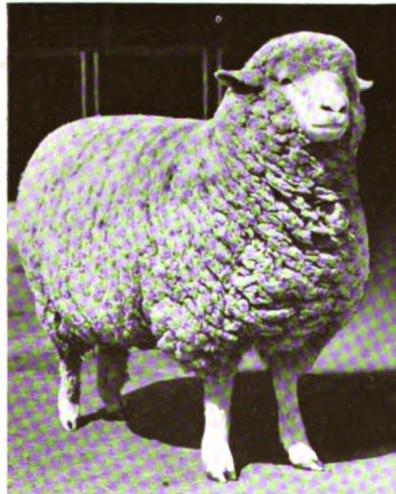


FIG. 128 (*Left*) —Yearling Romeldale ewe, exhibited at the Panama Pacific Exposition in 1915 by A. T. Spencer, founder of the breed (pp. 568-69). (Roof Studio.)

from ranchmen between Douglas and Fort Laramie, who forced bands totaling 75,000 head to keep moving for days without water. The cattlemen claimed that their range was devastated and winter feed short. Hence most factors causing the cattle-sheep wars lay outside imaginary incompatibility of cattle and sheep, and were based on abuses by irresponsible owners.

#### ATTEMPTED LEGISLATION

While the law of force ruled most range difficulties, attempts were made to handle the situation by legal methods. Nearly all western states tried it while still territories, but Idaho's efforts will serve as an illustration. Many bills were introduced into the legislature from 1870 forward, and two were of enough importance to be frequently invoked.

The first arose from quarrels with homesteaders. In 1875, the "Two-Mile-Limit Law" was passed. This made it illegal for any person owning or having sheep to herd them, or permit them to be herded, on the "possessory claims" of others. Grazing was strictly forbidden within two miles of any dwelling house, but they could be driven by.<sup>15</sup> Obviously legislators who passed this law did not care whether it was enforceable.

In 1883, with the aid of homesteaders and farmers, the cattlemen pushed through a Priority Rights Law, which made it unlawful to range sheep where cattle had been grazed. The enforcement of this law was difficult, and led to costly lawsuits and a number of shooting scrapes. For several years deadlines were established, but there were always a few daring herders who felt themselves equal to any number of cowboys, and who would move into "cattle territory."

An example of the use of these laws occurred in the Lemhi country of northeast central Idaho. The first sheep were taken into the upper part of the valley in 1892 by a man named Porter. After

some agitation, with intervisiting and planning by the cattlemen, Porter's sheep and his herder were expelled from the district. A few years later two separate outfits located near old Fort Lemhi, each of them rather small. After a warning, the cattlemen enforced the law themselves—driving one band up Agency Creek over the divide into Montana. When they returned for the other, the owner announced that the sheep were his only property and that the posse would have to take them over his dead body. The cattlemen dispersed, but returned a few nights later, bombing the sheep sheds and crippling many of the sheep. This ruined the owner and he fled the country. Then, in October, 1908, Mrs. Emma Yearian introduced twelve hundred lambs.

It was predicted I would suffer the same fate, but nothing happened except to have me arrested pretty often—Two-Mile-Limit-Law trespass—and that old law passed in 1883 whereby no sheep might graze on range where cattle and horses had grazed before. When it was found I could own sheep, several others brought bands of ewes until now I think the sheep business must be more remunerative than that of cattle.<sup>16</sup>

Handling the question by legislation was but slightly successful.

#### DIAMONDFIELD JACK

The climax in Idaho was reached in 1896, in the famous "Diamondfield Jack" case. Early that year the cattlemen of Cassia County, along the south-central border of the state, asserted that sheepmen were trespassing across certain lines which the cattlemen claimed under Idaho's Priority Law. Cattlemen in this section were around Rock Creek while the sheepmen were around Oakley and eastward. The cattlemen claimed a deadline in the Shoshone Basin east of the region, between Deep Creek and Goose

<sup>15</sup> Brosnan, *History of the State of Idaho*, 157.

<sup>16</sup> Mrs. Emma R. Yearian, Lemhi, Idaho. Letter to A. H. Caine, Boise, Idaho, February 8, 1940.

Creek. Patrolling this line was an alleged employe of the Shoe Sole outfit (then owned by the Utah Construction Company) who bore the melodramatic nickname of "Diamondfield Jack." Jack Davis was a young fellow with a record as a gunman, and the sheepmen asserted that he was given this job because of his qualifications. Davis boasted that he had shot up the Dunn sheep camp in Middle Basin in company with Jack Gleason, another cowboy. He was known to have shot William Tolman of Oakley and to have sent him out of the country on a stretcher.<sup>17</sup>

Two young sheepmen, Cummings and Wilson, camped their flock that winter between Deep and Goose creeks, about six and a half miles south of Rogerson. On February 4, a passerby observed the two men, eating breakfast, with two sheep dogs tied to the wheels of their wagon. Twelve days later both were found dead in the wagon, each shot with 44-caliber bullets. The two dogs, emaciated and exhausted, were still tied to the wheels, and the band of sheep scattered over the horizon. In the oven was some uncooked bread, and the only firearm in camp, a rifle, had not been used since the barrel was cleaned. Four 44-caliber shells lay in a direct line on the ground, three to twenty feet from the wagon.

"Diamondfield Jack" had disappeared but was picked up in Yuma, Arizona. He was charged with killing Wilson, and a battery of high priced lawyers was engaged by each side. The prosecuting attorney of Cassia County, John C. Rogers, was assisted by a young man destined to a political future as senator from Idaho, William E. Borah, and by one of the best known attorneys of Salt Lake City, O. W. Powers. The defense was represented by Hawley and Puckett of Boise,<sup>18</sup> and K. I. Perky of the same city. The trial lasted for thirteen days,

every legal move possible being attempted by both sides. Conviction was finally obtained on circumstantial evidence—parts of which hinged on the use of 44-caliber bullets in a 45-caliber pistol, and the ability of a single horse to carry a rider slightly more than fifty miles between one P.M. and bedtime. "Diamondfield Jack" established alibis as to his presence at two points in Nevada, the Boar's Nest Ranch at one P.M. and the Middlestack Ranch that night.

A new trial was denied, but one and a half hours before Jack was to be executed, Attorney Puckett galloped into Albion with a stay based on an appeal to the Idaho Supreme Court. However, this Court confirmed the verdict and he was again ordered to be hanged. Before the sentence was carried out, another appeal was taken to the United States District Court, which also affirmed the decision. Again, moments before the hanging was scheduled, the tireless Puckett brought a stay of execution from the State Pardon Board and a change of sentence to life imprisonment. Finally, a year and a half later, Governor Hunt granted an unconditional pardon.

This act engendered more hard feelings, for the cattlemen hinted darkly at persecution supported by the Mormon church at Salt Lake City. However, the entire incident brought about a change. Up to this time the cattlemen had the advantage in legal and political position; thereafter they were far more tolerant of sheepmen.

#### SOME HUMOROUS ASPECTS

Often there was as much humor in the attempts to straighten out the situation as there were hard feelings. On the last day of January, 1895, the Wyoming House of Representatives received a bill

<sup>17</sup> C. S. Walgamoth, *Reminiscences of Early Days*, Vol. 2:56 *et seq.*

<sup>18</sup> *Ibid.*, 62.

prohibiting the grazing of any herd of horses, cattle, or sheep within three miles of any occupied ranch, and for nearly two hours the debate fluctuated between hilarity and nastiness.

Mr. Sullivan of Natrona County (the big sheep operator) made a lively fight against the bill. He said its practical effect would be to wipe the sheep industry of Wyoming from the face of the earth, and drive every sheepman into the Democratic party. On account of the hostile legislation of the Democratic party, the sheepmen, Democrats as well as Republicans, had contributed to the great Republican victory at the polls last November. With the gallant McKinley as their leader they would again be with the Republicans in two years, unless they were driven away by some such inimical legislation as proposed by the bill under consideration. . . . Interspersed with his Irish wit, the several speeches of the gentleman on the question created much amusement. Mr. Mahoney of Carbon, another sheepman, and Mr. Parmenter, were Mr. Sullivan's chief supporters.

Mr. Kelley, Mr. Brooks of Sheridan, Mr. Goodell, and Mr. Howard of Uinta strongly urged the necessity of passing some law to prevent trouble between the small ranchman and (owners of) the large bands of sheep which are permitted to destroy the range of the former.

Mr. Goodell told of his experience with sheepmen who come into the Bear Valley from Utah with their flocks and eat up every vestige of grass about the homes of small ranchmen. He quoted the language of one of the owners of these bands of sheep in reference to the speaker's efforts to form an organization for the protection of settlers. These were in effect that the s— of a b— ought to be eaten out and driven out of the country.

Mr. Sullivan objected to Mr. Goodell's remarks as being unparliamentary and unbecoming a gentleman, and insisted that they be taken down. Mr. Goodell expressed a perfect willingness to have the clerk do so and, in fact, insisted upon it, but nothing came of the matter. Mr. Sullivan also . . . gave Mr. Higgins of Converse, who was supporting the bill, a little dig . . . (saying) the gentleman from Converse although interested in the sheep business, was compelled to support the bill because he owned a store in Glenrock, and if he did not do so, he was afraid he would lose the trade of a couple of ranchmen in that vicinity. Mr. Mahoney remarked that the gentleman appeared to be between the devil and the deep blue sea.

Mr. Brooks finally offered a substitute for the original bill, providing that the distance that stock could be herded from any occupied ranch should be but two miles. This, after considerable debate, was adopted. Mr. Higgins of-

ferred an amendment that the law should not apply to sheep during the shearing or lambing seasons, but this was lost by a bare majority of one vote. A motion was adopted that the committee recommend that the bill pass, eighteen voting for and thirteen against the bill.<sup>19</sup>

This bit of fireworks was only the start. On February 9, *The Cheyenne Leader* reported that the state attorney general had issued an opinion that the "sheep bill" conflicted with the constitution. In the meantime the bill was brought before the house for second reading. Brooks offered a substitute, drafted to avoid conflict with the constitution. An amendment was adopted, reducing the distance to one mile from a ranch headquarters and two miles from a town. After hot exchanges of personalities the bill was engrossed as amended and accepted for third reading. On February 12, it was given this reading, passed by the house, and sent to the senate. Thereafter stories on the bill were absent from the newspaper columns, and the entire episode disappeared in that cloud of smoke over the cattle-sheep wars, which so consistently hid the fire.

The problem of a state's passing laws to regulate federal land not under state control, in order to protect residents of that state against the competitive use of the public land by others whom the Federal Government permitted there, was more of a job legally than the wisest lawmaker could have undertaken successfully. This fact, however, did not deter the pioneers from the attempt.

#### COMPLICATING ISSUES

While the conflicts between the cattlemen and sheepmen were based on the insecurity of range tenure under the federal management of the day, they were frequently complicated by other

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<sup>19</sup> *The Cheyenne Leader*, January 31, 1895.

factors, especially racial. In Colorado, Texas, New Mexico, and Arizona, the cattlemen and their employes were usually American, English, Scotch, or Irish, while sheep herders were Mexicans or Indians, possessing less physical strength. Consequently the former looked down on the latter. In California, the herders were Mexican, Indian, Chinese, Portuguese, French, or Basques. The latter races were as able physically or mentally as the cattlemen and their employes, but most of them could not speak the English language, and this barrier prevented a common footing. In the Idaho districts religious prejudice flourished, for the majority of sheep outfits were owned by Mormons, or Utah men whom cattlemen "lumped" with Mormons. But in Wyoming and northwestern Colorado, the rivalry had no racial aspects, and the absence of other issues engendered even more bitter feelings.

Contemporary reference to the hostilities is enlightening. Cattlemen, whose credit was destroyed by the winter of 1886-87, were unable to use ranges they had formerly claimed. These vacancies drew in sheep from Utah and southern Idaho, while flocks in southern Wyoming pressed northward into the Big Piney-Casper country, and up into the Big Horn Basin. In the opposite direction the grazing in the mountains of northern Colorado, west of the Continental Divide, proved highly alluring. Excitement first reached fever pitch in the latter country.

#### STRIFE IN NORTHWESTERN COLORADO

Northwestern Colorado (Routt, Moffatt, Rio Blanco, and Garfield counties) was occupied by the cattlemen in the late seventies and early eighties. The western slope of the Rockies was delayed in settlement by farmers and homesteaders because of the "Meeker Massa-

cre," and herds of cattle were well established. No sheepmen were located in this region, but as flocks multiplied along the Union Pacific, an increasing number of Wyoming sheep were driven there for summer range.

In the latter eighties, deadlines were drawn to keep sheepmen out of a district extending thirty to forty miles west of the Continental Divide and north of the Bear (Yampa) River. The valleys in this region provided adequate winter range for the cattle raisers, as long as the sheepmen did not utilize the same areas for summer grazing. Few of the cattle growers were cowmen, but instead grazed steers from Texas and New Mexico. The three big outfits around the turn of the century, each with ten to fifteen thousand steers, were Senator Carey of Hayden, Ora Haley with the Two-Bar brand, and Peter Rief with the L 7 brand.

The situation began to be critical early in the nineties, and there was continual excitement in the vicinity of Craig, Hayden, and Meeker.<sup>20</sup> The *Craig Courier*<sup>21</sup> quoted the following story from the *Denver Republican*, which details the foundation of the difficulty:

Ten years or so ago, all the lower hills and parks were covered with a thick growth of blue-stem grass. So heavy was this growth . . . that thousands of tons of hay were cut annually without fencing, cultivating, or irrigation. The uncut grass cured on the stem and afforded winter pasture to the immense herds of cattle that fattened all summer on the rich grasses of the higher plateaus. Cattle could pick up, fat for market, in any month of the year, with no extra feeding at all. (Beef was shipped in June as late as 1894.)

The profits of the business were great, and cattle were trailed in from all the ranges of the

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<sup>20</sup> The quotations in connection with this phase of the story are from the *Craig (Colorado) Courier*, the material having been assembled by J. Monaghan under a Federal Writers' Project (W.P.A.) in the Colorado State Historical Museum.

<sup>21</sup> *Craig Courier*, January 2, 1897.

West, and even from Texas. A succession of dry years shortened the feed, and the cattle ate it so close that the range was permanently impaired, or at least so damaged that it will take years of rest for it to recover. The irrigable lowlands have been taken up by settlers, and much of the drinking water fenced in from the stock. It is hardly to be wondered then, that the cattlemen are roused almost to the fighting point by what they consider the determination of the sheepmen to take what little is left of the winter range.

As early as 1891 the *Craig Courier* was carrying alarming stories of sheep movements in what had been cattle country. By 1894 lines had been drawn on Snake River by the cattlemen.<sup>22</sup> Details were given in *The Cheyenne Leader*, which told of a mass meeting among the Snake River cattlemen, from both sides of the Wyoming-Colorado line. At Slater, these men set up the following boundaries, within which sheep were not to be allowed: From the mouth of Savery Creek, north to the ridge between the

Little Sandstone and the deep gulch east of Battle Mountain; thence east along the ridge to the forks of Battle Creek; thence east on an airline to the north fork of Snake River; thence south, across the Snake, along the divide between South Fork and Slater's Park; thence to the divide between Willow Creek and Slater's Park to the mouth of the Savery.

The country reserved is about fourteen miles wide, on the average, while the country open to sheep surrounds this little patch on every side. The sheepmen profess to be satisfied with this arrangement.<sup>23</sup>

One week later the trouble had shifted eastward to the Saratoga Valley, where the cattlemen announced in a newspaper that sheepmen were ruining the grazing

<sup>22</sup> *Craig Courier*, April 6, 1894.

<sup>23</sup> *Carbon County Journal*, April 21, 1894.

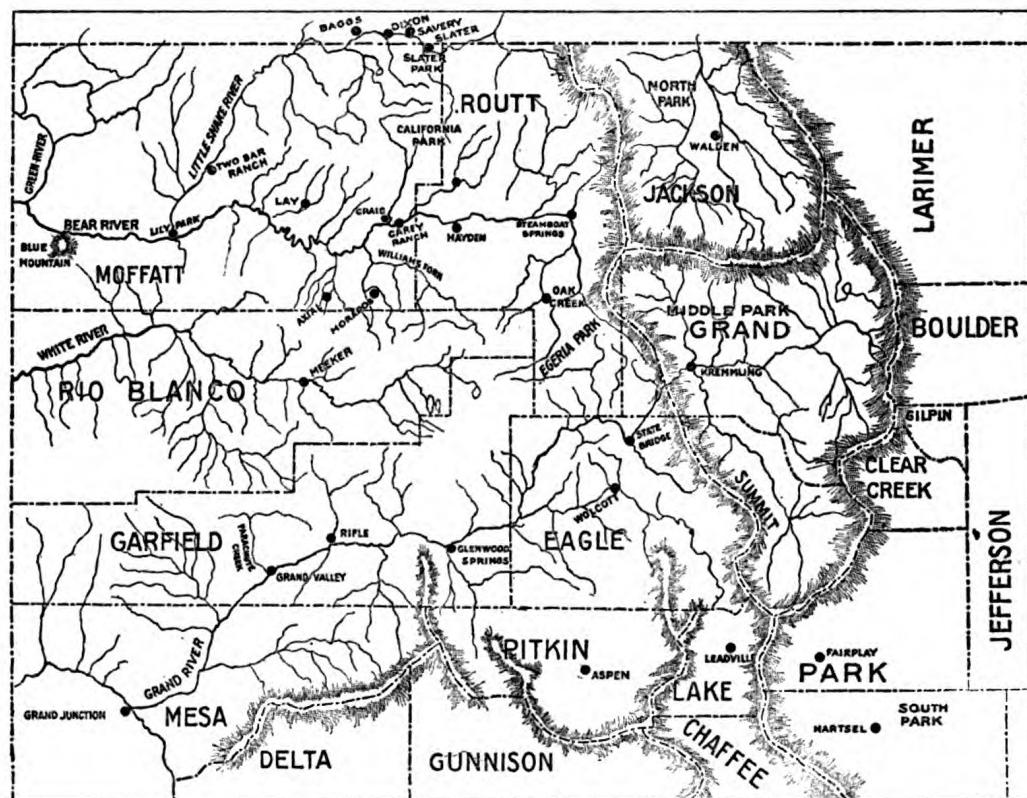


FIG. 129—Locations in northwestern Colorado involved in the cattle-sheep wars of the nineties.

and driving the cattle from the country. The claim was made that the sheepmen were extending their ranges and encroaching year by year until "there is hardly a stream south of Encampment, on either side of the river, that is not in their possession."<sup>24</sup> They then asked whether they should emulate the Snake River cattlemen, and "secure some of the range before it is destroyed."

Sheep troubles did not become public again until fall when a serious situation developed in Garfield County about sixty-five airmiles south of Craig:

Thirty-eight hundred sheep were stampeded over a bluff into Parachute Creek on September 10th while their owners were at the Peach Day celebration at Grand Junction (fifty miles southwest). One of the herders, Carl Brown, resisted and was shot in the hip . . . (being left on the range by the raiders). A posse from Parachute (modern Grand Valley) found a mass of dead sheep at the foot of a thousand-foot bluff and climbing up the narrow trail found a wounded herder. The owners are residents of Parachute with rights to the adjacent range and the posse made a futile race to apprehend the raiders. John Miller owned seventeen hundred of the sheep and Charles Brown, uncle of the wounded man, twenty-one hundred.<sup>25</sup>

Tradition says Hulbert was another owner of this band who was later sent to the legislature because of sympathy for his losses. Old timers in Rifle found little papers blowing around the streets the day after the killing. On each was written "Mum's the word."

By the end of May, 1895, trouble was again astir in northwest Colorado. At a meeting of stock feeders in Steamboat Springs, resolutions were passed forbidding Bear River Valley to sheepmen—resolutions subsequently ratified by a mass meeting of citizens not identified with either the sheep or cattle industry.

From early morning until two o'clock the wagon roads leading to Steamboat (Springs) from north and south, from lower Bear and Elk River, and from Egeria and Twenty-Mile Park, have been subjected to a traffic of teams and saddle horses that has not been known since the march of the Meeker relief.

On the night of the nineteenth riders were sent out to scour the country and warn the settlers that sheepmen now holding their flocks on Snake River at the Wyoming line, were contemplating an invasion of the Bear River cattle ranges. The effect was electrical, and by noon today fully 350 cattlemen and feeders were assembled to decide upon positive action to keep the sheep back, in the event of their not being withdrawn from the cattle territory and shipped from other than Routt or Eagle County railroad points.

At the mass meeting of citizens, which was presided over by Senator Graham, resolutions . . . adopted by the Stock Feeders' Association were ratified unanimously, as were also resolutions conveyed . . . from similar meetings held at Hayden and in Eagle County, which places were represented by delegates aroused from their slumber, as were the Bear River delegates.

After reciting the danger to cattle and ranchers by a sheep invasion, the resolutions adopted closed by reading that "if sheepmen will not respect our rights, we will be compelled to resort to such means as will protect us in what we believe to be our just and equitable rights.

The resolution refuses to allow sheep to be either grazed or driven through the country drained by the Bear River, which includes all the territory from the Continental Divide west to Utah, a distance of 150 miles, and (the resolution also includes) the public edict against sheepmen and their embargo from entire northwestern Colorado.

It is believed that the sheepmen will disregard the warning of the stock raisers, and attempt to drive through the forbidden territory, fattening their mutton as they approach the railroad, depending on state aid in the protection of their rights.

But to anticipate any such action the stock feeders and cowboys, with a force of eight hundred to a thousand (men) are holding themselves in readiness forcibly to resist any advance made south of Hahn's Peak by the sheep owners. A war is imminent and unless the more conservative heads prevail, the rifle will figure a conspicuous part in a Routt County sheep war. The sheep that are causing the trouble are some sixty thousand head belonging to J. G. and G. W. Edwards and others in Wyoming.<sup>26</sup>

On June 4 a tale of wild excitement came out of Hayden that was copied widely in all western papers. Agitation and movement equal to that of the Ute

<sup>24</sup> *Carbon County Journal*, April 28, 1894.

<sup>25</sup> *Craig Courier*, September 14, 1894.

<sup>26</sup> *The Cheyenne Leader*, May 23, 1895.

war of 1887 spread all over Routt County.

Since daylight troops of cavalry have been dashing into town at short intervals from all directions, representing every settlement of the county east of the established sheep country. During the day fully two hundred armed men, representing the ranching and cattle industries, arrived in town, soon to disperse and scatter for the night among the ranchmen in the vicinity of Hayden for a distance of five miles on each side of the town.

The weather has been most severe upon the gathering conclave, having drenched them all to the skin and causing heavy roads. This afternoon the clouds lifted and left the army in good spirits. A mass meeting was held at eight o'clock tonight, over which Judge Dunfield of the county court presided, and final arrangements for tomorrow's march to see that the edict against sheep has been obeyed, were made.

In executive session of the whole, a general was elected who, though his name is not divulged, is known to have enormous ranching and cattle interests in the county. Ten captains to command that many regulation companies were chosen, and quartermasters, etc., appointed to their wagon trains.

The army is well provided with ammunition, but a general disposition prevails to avoid resort to violence, and end the campaign in peace and harmony. The marching force will go from here to the mouth of Elkhead Creek, there meet the Craig division, and from there ride to the sheep camp, some twenty-three miles from Hayden....

The sheep are said to number forty thousand now at the headwaters of Elkhead Creek, and there is a wild rumor afloat, which also reached Steamboat Springs last night from an opposite direction, that there are 150 armed Pinkertons with the sheepherders, with a train of eleven wagons.

It is now midnight, and the campfires about the single street of the town in front of two or three store buildings have a warlike appearance. About fifty men are in bivouac in an open field near town, and sitting about camp fires in the midst of stacked arms. The scene reminds one of the Bull Hill campaign.

The main body of the army will form here at seven o'clock in the morning, and it is thought the full strength will number eight hundred, all prepared for any emergency that may occur. A runner has been dispatched to the sheep camp, warning them to leave the cattle territory, and every opportunity has been offered by the cattle-men to the sheepmen to fall back.

The rumor of Pinkertons in California Park constantly excited by the leaders, however, has proved stronger than the persuasion for peace and quiet, and if it proves true that the sheepmen have decided upon resistance and invasion,

a bloody battle will occur in the Elkhead Mountains on the sixth or seventh inst.<sup>27</sup>

The size of the sheep force which the cattle-men actually faced damped their heroics. The bubble of excitement burst and deflated the cattle-men's mood.

The sheep war for the time being has been declared off, and unless the sheepmen disregard the warning that has been given by the settlers, no blood will flow.

Scattering squads of horsemen have been arriving in the town all day, and a more peaceable crowd has never been seen. Their arms had been left behind with the wagon trains and all seemed contented that sheep would never again enter the cattle territory. The sheep that were encountered on Fortification Creek, some eighteen hundred, were found to be the property of an innocent individual instead of Edwards, as it was supposed, and he was consequently allowed to depart in peace, on the promise that the deadline would not again be crossed.

A detachment of horsemen has been sent to Spring Creek, thirty miles back of Craig, to move sheep reported to belong to Edwards and ex-Governor Osborne of Wyoming.<sup>28</sup>

Apparently the party did not locate either of these flocks, but as the date approached when shipments to market normally commenced rumors began to fly again. On July 27, the *Courier* stated that

The sheepmen on the Wyoming line are talking of again attempting to range their flocks in Routt County. It is quite probable that the cattle-men of this country are as determined a set of men as are the woolgrowers, and it is not at all likely that they will permit the devastation of their ranges to proceed without interruption.

Seemingly the editor of the *Craig Courier* enjoyed agitation that would fill his news column, and passions ran high in an atmosphere so charged with tension. Nothing but minor rumors appeared for seven weeks; then a Craig shoemaker, "Doc" Montgomery, and "the only Sullivan" returned from a hunting trip in California Park, where they could find no elk due to the large bands of sheep.

<sup>27</sup> *The Cheyenne Leader*, June 8, 1895.

<sup>28</sup> *Ibid.*, June 12, 1895.

Jack Edwards has ten bunches of sheep aggregating forty thousand head in California Park. His men claim that he does not intend to drive them through to Wolcott (on the Denver and Rio Grande Railroad) and Eagle River, (sixty miles south of Steamboat Springs) for shipment, but only wants the benefit of the ranges and will ship as usual from Rawlins this fall. The cattlemen are supposed to have a man patrolling that country for the purpose of notifying them in case sheep were brought in, but to date no report has been received from him.<sup>30</sup>

In spite of this assurance it was apparently Edwards' intention to load from the Denver and Rio Grande, as the *Craig Courier* on March 7, 1896, stated that "all the sheep trouble in Routt County in 1895 resulted from Edwards' attempt to drive his sheep to Wolcott for shipment." In the same story his return to Colorado for 1896 was reported, as well as his payment of taxes on seventeen thousand head in Routt County. Two weeks later the paper said:

Jack Edwards is planning returning to Colorado this spring and is constructing shearing corrals at Four Mile (Creek). He has hinted that he may protect his interests with militia. Mr. Edward's position on the range interests has been communicated to the cattle growers' associations and prompt action will be the result.<sup>31</sup>

While Jack Edwards seemed to be the *bête noir* of the Bear River cattlemen, according to the newspapers, his brothers Griffith W. and George Edwards were often harassed, and Frank Goodman was so maltreated in Brown's Park that he had to retire from business and sell his ranch to Matt Rash of Lodore.<sup>32</sup> The three Edwards brothers were Welshmen who came to Rock Springs, Wyoming, in the late eighties and formed the Edwards Brothers' Sheep Company. Jack Edwards was a small, nervy, muscular type of man, extremely resourceful, and was only once caught off guard by the cattlemen. Even then he exacted a trade from them, while they had the "drop" on him, that many men could not have handled under normal conditions.

On April 11, 1896, the Snake River cattlemen called a meeting to "draw lines with the sheepmen," announcing their exclusion from the western slope in Colorado "at least as far west as Baggs (north of Craig)." These same cattlemen had met at Savery on April 7, and had passed the following resolution:

Whereas, not only the Snake River Stock Growers' Association, but all the stock growers' associations in Routt County, are unanimous in their opinion that in all fairness the cattlemen should be left the use of the range within said county:

Resolved that the sheep owners who have entered sheep, or have threatened to enter them, into Routt County, be requested to withdraw them.<sup>33</sup>

At that meeting cattlemen admitted that a few farmers favored sheep for marketing their surplus hay, also for reducing taxes. Soon the cattlemen were taking a "dog-in-the-manger" attitude on this subject, protesting against selling hay to the sheepmen, but being unwilling or unable to pay corresponding prices. The high spots in the situation to the close of the century are summarized in quotations and abstracts from the *Craig Courier*, which probably report the current feeling with less "interpretation" than present-day writers could do:

*April 25, 1896*

Dixon, Wyoming  
April 15, 1896

To the cattlemen of Routt County, Colorado:

I pledge myself to keep the lines and range occupied by me last year. I further agree to close out my entire interest in the sheep that I now hold in said county and state, before the end of the fall and winter of 1899. And I promise to do all in my power to protect such lines given to cattlemen and ranchmen, against any foreign sheep that may try to cross the lines agreed upon.

Yours most respectfully,  
J. G. Edwards

<sup>30</sup> *Craig Courier*, September 14, 1895.

<sup>31</sup> *Ibid.*, March 21, 1896.

<sup>32</sup> *Ibid.*, October 2, 1897.

<sup>33</sup> *Ibid.*, April 18, 1896.

*May 9, 1896*

If Mr. Edwards is allowed the privilege of running his sheep in Routt County for three years or until such time as he disposes of his entire interests in that industry, other sheep owners will demand the same privilege.

The dividing line between sheep and cattle should be established on the state line of Wyoming and Colorado.

*May 23, 1896*

Jack Edwards "is still talking of advancing, but if he does he must take the consequences!"

Several Craig freighters are hauling wool to Rawlins for J. G. Edwards. He is reported to have several bands of sheep in the Four-Mile Country.

*May 30, 1896*

The Four-Mile district presents "a sight which will sicken the average stockman. J. G. Edwards has an even thirty thousand head of sheep ranging in that section.

"Inactivity of cattlemen around Slater (is) inexcusable, as Edwards is drawing closer with his sheep all the time and reports say he is headed toward Slater (fifteen miles east of Baggs, just south of the Wyoming line) and California Park." It is also reported that a hundred twenty-five thousand sheep are headed for these parks.

*June 27, 1896*

For two days the cattlemen gathered in considerable numbers in the mountains near Slater Park. Edwards, at his shearing corral at Four-Mile, heard that his herders had been killed and his sheep scattered, so mounted a horse and rode out to confirm the rumor. After riding twenty miles he was confronted by a party of masked men who made him dismount and sit with his back to them while he was told that he would have to move his sheep within ten days. He agreed to comply with their wishes, if they would allow him to keep the eight thousand wethers he was summering in California Park on their present range until October first when he would ship them to market.

*July 4, 1896*

Prompt to keep his word with the cattlemen, J. G. Edwards began crossing his ewes and lambs from Colorado last Monday. If all sheepmen kept faith with the cattlemen as well as Mr. Edwards the range question would be easily adjusted.

*October 17, 1896*

The time agreed upon between J. G. Edwards and the cattlemen for the removal of the last of his sheep from Routt County expired last Thursday. Edwards has his sheep upon the move and says he will have them all out of the county in a few days.

*January 23, 1897*

J. G. Edwards interviewed in Omaha said: "The cattlemen have several times sent word over to me that they were coming over to clean me out, but I have assembled my men and stayed there. I have an armed force of about fifty ready for the clash when it comes. I am compelled to keep a small army about my place all the time. A short time ago three hundred sheep were killed and two herders; for a while it looked as though the entire Colorado militia would have to be called out, but the sheepmen and cattlemen looked out for themselves, and there are several graves in the vicinity of Meeker that go to show that they know how to do this. The sheep war is not dead, nor is it sleeping, and I suppose it will go merrily on."

In the same issue the *Denver News* is quoted:

If Jack Edwards has a standing army over in the far northwestern corner of the state, the officers of the law ought to take a hand in the matter forthwith.

*March 27, 1897*

J. G. Edwards is going to move his shearing pens from Four-Mile to Deep Creek, eight miles north of Baggs (Wyoming).

*December 4, 1897*

Jack Edwards has several bands of sheep in the Four-Mile country. He has been crowded out of Carbon County, Wyoming, by Tim Kinney who put seventy-five thousand head on top of him. "The stockmen are very quiet in regard to the matter, but it is evident that there is an undercurrent moving along which forebodes no good to the sheep owners." Edwards is inducing the farmers who have hay to sell, to take a flock of sheep and feed them. Cattlemen object to this.

*December 11, 1897*

Edwards has emissaries offering more for grain than the cattlemen will pay and he is offering to buy up surplus hay. No ranchman will be interested in his proposition except those who have no stock. "Edwards is a hale fellow well met, a congenial force socially; is a prompt and heavy taxpayer; spends his money like a prince, and whilst, he is a man one likes to meet as he has the happy faculty of making friends." But "he is resourceful beyond degree."

*December 18, 1897*

A. R. Reader, cattleman, who was forced out of Wyoming by the sheep says there is no truth in Edwards being forced out of Wyoming by Tim Kinney.

A few of the members of the Stock Feeders' Association at Hayden favor having sheep

brought in to consume the surplus hay but the majority are bitterly opposed to this. An effort is being made to secure money to purchase cattle to eat the surplus hay.

*September 9, 1899*

Evidently some of the Wyoming sheepmen have forgotten that the state line was established as the boundary between sheep and cattle ranges—a boundary which the stockmen will enforce. According to reports from the upper Snake River, there are now eighteen thousand head of sheep in Routt County.

*November 18, 1899*

The Geddes Sheep Company purchased Jack Edwards' interests and moved twenty-five to thirty thousand sheep into Colorado. In the past three years a few herds have come across but not many. On the morning of November 15, forty masked men rode up to a camp and clubbed and scattered three thousand sheep. The herder's effects were taken from the wagon and then it was demolished. The hills were picketed so no interference would be made. The camp was located on the lower Snake River near L7 ranch. About a thousand sheep are said to have been killed. Geddes reports twenty-five hundred in the band.

Jack Edwards moved to Oregon, and became one of Oregon's leading sheepmen at the famous Hay Creek Ranch.

#### UTAH GROWERS ENTER COLORADO

After the century closed, sheep pressure on Colorado's western slope came from Utah. The establishment of the National Forests in 1905–06 put a semblance of order into the range disputes of this region, and the Wyoming sheepmen were given summer grazing permits that tied in well with the ranges in their own state.

But the Utah growers had another problem. Many of them wintered in the southern Utah desert, and sought the high mountains of western Colorado's forest reserves each summer. Holdings of Colorado cattlemen intervened, and deadlines were drawn which forced circuitous drives of fifty to two hundred miles to avoid trespass. During dry periods or unseasonal storms, genuine hardships were imposed on the flockmaster.

In the fall of 1908 the situation was serious because of early storms and high water. Desperately the sheep owners banded together, hired a hundred men and armed them, as well as each herder and camp tender. With advance, flank, and rear guards, and with bands closely bunched, they crossed the cattle country in grim formation. Whether the outfit was too formidable to challenge or whether the cattlemen realized the dire necessity, the entire "sheep army" crossed into Utah without molestation.

The coming of the Moffatt Road to Steamboat Springs in 1909 and its westward projection provided rail access to the National Forests on the Western Slope. Wool growers of the Rawlins district took advantage of this new transportation (despite a routing through Denver), as lambs raised in northwestern Colorado would weigh eighty to eighty-five pounds in the fall while they would weigh only fifty to fifty-five pounds on the Wyoming range.<sup>33</sup> This system did not please cattlemen, but their activities were already hampered by the homesteads, which excluded them from the available water. However, banks were afraid to loan money on sheep, lest they damage their cattle paper.

Yet a few men had small flocks. South of Craig, George Woolly had 120 head on a homestead. While he was in Denver, during the winter of 1915, cattlemen killed his entire flock. Isadore Bolten also had a few cattle and a band of two hundred ewes. Going to his party telephone one morning he heard two men discussing the slaughter of Woolly's flock and expressing curiosity as to how long Bolten would last. Thereupon Bolten confined his sheep to his own property and locked them each night as securely as possible. During the next

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<sup>33</sup> Bolten, Interview, July 25, 1940.

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two or three years several operators had single bands west of Craig. N. M. Chapman, Horace Colthorp, and a man named Brimhall each ran a thousand to twelve hundred ewes.

When the grazing season opened in 1920, Colthorp and Brimhall were each taking two bands to the Flat Top range, White River National Forest, south of Yampa. Chapman also was moving a small band there, as were Bolten and John Kitchens. Three hundred armed cattlemen assembled at Morapas, near the site of the Meeker Massacre (fifteen miles from Craig) to intercept them. One band crossed safely into the Forest, but the rest were stopped. A few cattlemen rode into one and killed 150 head, but there were no human fatalities. Governor Shoup sent out the militia, and under its protection, after agreeing with the cattlemen and Forest Supervisor that they would ship out that fall and never return, the sheepmen and their flocks entered the Forest.

Also that spring cattlemen attacked a sheep camp on Blue Mountain and drove twelve hundred head over a cliff, killing both owner and herder. At that time the Winders were driving twenty-two hundred head into the district from Price, Utah. A telegram sent to their Salt Lake City office threatened similar rim-rocking if they persisted in advancing. Seven well-known cattle operators signed the message—one of them a leading horse breeder and another, later, a prominent federal official. Although the Winders passed the carcasses of the "rim-rocked" flock, their advance guard was watchful, and they reached the new range safely. It is interesting that four of the seven men who signed the telegram took on sheep themselves within five years.<sup>34</sup>

These activities represented the final struggle of the cattlemen, although the question is still "talked up" occasionally.

In the summer of 1940 a half-hearted attempt was made to exclude sheep from certain forests, but the Forest Service officials found the reasons supporting the petition and resolutions inadequate. Northwestern Colorado proved to be even better adapted to sheep than to cattle, and returns per unit of land have been considerably greater. The steer grazing on which the early conflicts were based has been discontinued completely in that section, and except for a few malcontents, the issue has disappeared.

#### THE WYOMING WARS

The bitterest war of all developed in Wyoming, when the flocks moved north from the Union Pacific. Many early cattlemen<sup>35</sup> owned sheep on the side, while the flockowners of the early eighties ran small herds of cattle.<sup>36</sup> In 1880 a Cheyenne paper<sup>37</sup> published an editorial stating that Wyoming was one region where sheep and cattle need never clash. The editor pointed out that the territory was on the crest of the continent and sheep could use the uplands efficiently while cattle could not graze them. He felt that when stock owners realized that cattle could best use the valleys and the running water, while sheep would flourish higher up, the situation would redound to the advantage of the Territory.

But his optimism proved unjustified. The westward-moving frontier met the eastward-moving one in Wyoming, and when two men desiring the same range met, there was no place for the loser

<sup>34</sup> G. N. Winder, Craig, Colorado. Interview with author, January 12, 1940.

<sup>35</sup> Durbin Brothers, Warren Livestock Company, Judge Kuykendall, E. W. Whitcomb, Ora Haley, and Post and Corbett, for example.

<sup>36</sup> Tim Kinney, Miller and Hurt, Homer and Sargent, John Woodruff, John Mahoney, Swan Land and Cattle Co., and the Dickie Brothers, for example.

<sup>37</sup> *The Cheyenne Leader*, December 23, 1880, 4.

to go. So, in the absence of real authority for areas of land larger than a ranch headquarters and a few waterholes, fights developed. Cattlemen entered the North Platte country, the Powder River region, the Bighorn Basin, and the Green River territory ahead of homesteaders and sheepmen alike, and developed a strong sense of priority and seniority. Sheepmen held priority only in the Red Desert, where they leased the alternate sections of railroad land before 1900. But the upper reaches of the big rivers, especially the Green and Big Horn, were occupied by cattlemen who bitterly opposed sheep encroachments.

One of the earliest shootings took place in Natrona County, eighty miles west of Casper near the postoffice of Ervay. During the afternoon of February 22, 1895, Jacob Ervay rode to the sheep camp of George E. Howard and William Kimberly, three miles west of Ervay postoffice, and according to Kimberly, began shooting with his Winchester, without reason or warning. The first bullet passed through Kimberly's right arm and turned upward into his body. Kimberly fell to the ground, and Ervay dismounted and laid him on his bed in the tent. He then remounted his horse and rode to the sheep to find Howard.

From Howard's statement, he followed the same procedure, except that he rode directly to Howard, raised his gun and fired, saying "I've got you, Howard!" The latter threw his arm behind him as Ervay pulled the trigger, but was not quick enough, and the ball passed through it between the wrist and elbow. Howard returned the fire, exhausting his ammunition, and wounding Ervay in the hip. He then ducked behind a sand knoll, but when he tried to observe his assailant, received one more of Ervay's bullets through his cap.

Ervay insisted that he only rode to

Howard's and Kimberly's tent to ask them not to graze nearer to his horse ranch, when they began shooting at him. Kimberly was seriously injured, but the wounds of the other two were slight. "All parties concerned are respected men, and have borne excellent reputations."<sup>38</sup> In fact, Ervay was the recorder for the mining district in the Rattlesnake Range, north and west of the modern Pathfinder Reservoir.

The same year there was considerable agitation along the tributaries of the Green River. "Pursuant to a call of the citizens and stockmen of the upper Green River country, a rousing mass meeting" was held at Big Piney on April 10, to decide upon a boundary line between the cattle and sheep ranges.

The meeting was called to order by E. D. Swan. H. C. Johnson was elected temporary secretary, and Ralph Friend presided in the chair. . . . After some hours of earnest and spirited debating, the question was put before the house, "Shall the sheep herds be compelled to vacate the range or not?" Carried by a vote of seventy-eight to two. (Evidently the "not" part of the question was omitted, though it was there parliamentarily.) Then came further debate upon the mode of operating boundary lines across which sheep were forbidden to pass. The meeting was then adjourned, and the executive committee immediately went into session and invited all sheepmen to attend, and further points were discussed and acted upon. A division of the range was then settled.<sup>39</sup>

Ralph M. Friend, of the cattle firm of Reel and Friend, was volunteer publicity agent for the Uinta County Stockmen's Association. On April 14, 1895, *The Cheyenne Leader* quoted him:

The only danger that we apprehend comes from the vast herds of sheep, many of them from Utah, that range all over the western part of the state, where permitted. The cattlemen in Uinta County have taken a determined stand against this encroachment, and there is no doubt that they will find means to keep sheep off of their ranges.

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<sup>38</sup> *The Cheyenne Leader*, February 28, 1895.

<sup>39</sup> *Ibid.*, April 21, 1895.

On May 10, the sheepmen and cattlemen met in Evanston and plans for a division of the range were set up. A strip of land was set apart for "the benefit of the sheep industry," and the sheepmen agreed to graze their flocks on this strip only. After June 15, the outside lands were to be vacated by the sheepmen. "The threatened trouble between the two industries will be ended by the amicable action of the meeting."<sup>40</sup>

The editor was more hopeful than prophetic. Within a month a most sanguinary attack took place. Four or five flockowners combined to cross the Mountains, with a dozen armed guards for protection. The cattlemen organized in Pinedale, and when the flockowners had been lulled into security by the absence of threats, attacked each camp with an overwhelming number of masked men. Herders were blindfolded and tied, and the raiders spent the whole night clubbing sheep. In each camp the equipment was burned, and about two thousand head killed. The captured sheepmen were sent back over the Bridger passes with their riding animals and a handful of food.

Three decades later the rusted irons and white-bleached bones still remained as a grim reminder of the episode. One of the camps attacked was at the site of the "Scab Creek Ranger Station" in the Wyoming National Forest, on the headwaters of Boulder Creek. As late as 1941, a mound of bones could still be seen near the ranger's corral.<sup>41</sup>

On March 28, 1902, the stockmen met in Lander to divide the country into roundup districts. Attention was paid to the sheep problem for the following May, Charles Souther, foreman of the Maxon Basin roundup, notified all sheepmen to keep out of that roundup district. About the same time a serious episode developed in the Big Horn Basin.<sup>42</sup> A band of masked and armed horsemen

attacked a large sheep camp, murdering the herders and killing or scattering the sheep. This incident really set off the range war in this region, and during the next six years it burst into frequent and lurid flame. Lawless bands terrorized the entire Basin, in several cases shooting herders and owners alike, and clubbing or "rim-rocking" without warning. Sheep dogs were tied to wagons and burned alive with the camp "plunder," while flocks were dynamited in their own corrals.

The year 1904 opened with a new pattern of harassment. Five hundred sheep belonging to Fred Henderson of Casper were run into the mountains by unknown persons and held until they were hungry, when they were killed by some mysterious poison. The work of administering it required two or three days.

#### THE MAXWELL AND STEVENS CASE

The most sensational case of that year was the attack on the sheep camp of Maxwell and Stevens, on the Weaver Ranch twenty-four miles south of Laramie.<sup>43</sup> Sixteen masked men destroyed two sheep outfits by fire and killed about three hundred sheep. At eleven o'clock at night, the Mexican herder in charge of the wether band was pulled from his wagon. The men threw out his bedding and set the wagon on fire. Taking the terrified herder with them (whom they ignored thereafter), they proceeded to the other camp a half mile distant. The night-herder, in charge of three thousand ewes, heard voices, and immediately wakened the foreman and the other herder. They could see the attacking party, and made a break for cover, but were stopped by

<sup>40</sup> *The Cheyenne Leader*, May 14, 1895.

<sup>41</sup> Agnes Wright Spring. Letter to author, March 25, 1941.

<sup>42</sup> Baker, "The Tragedy of the Range," 535-45.

<sup>43</sup> *Laramie Boomerang*, March 10, 1904.

shots over their heads and peremptory orders to throw up their hands. The masked men bound the three and tied them to a fence. When the foreman inquired from the leader their intentions, the latter said they would kill all of the sheep they could, and would kill the herders as well if they created any trouble.

The wagon was then set on fire, and fifteen men started to club the sheep to death while the other stood guard. When about three hundred had been killed, the raiders rode away. The Mexican released the other attendants, and the foreman walked seven miles into Tie Siding. There he sent up another wagon with supplies, and proceeded by train into Laramie to report to Dr. Stevens. During the raid the moon was shining brightly, and the foreman could distinguish several ranchmen from the neighborhood by their general appearance and voices. Warrants for their arrest were sworn out, and a big court case developed.

The significant feature was that the sheep were on private land leased from Mrs. Weaver, the owner, and Dr. Stevens stated that the sheep had never ranged anywhere else. Losses totaled two thousand dollars. Four men were held to district court, but after two postponements the defendants were found not guilty. It was extremely difficult to prove the guilt of assailants in a sheep camp raid, when a skillful lawyer scrambled details from witnesses who were attacked in the dark by men using masks to conceal their identity.

In 1905, the most sensational case was the Gantz raid on Shell Creek, already mentioned. In 1906, a camp of J. W. Blake was attacked, in the Wind River country, and three hundred sheep killed. In 1907 twenty-five or thirty cowboys turned a lambing band of William McCoy's back from Crow Creek onto the

Shoshone Reservation, after McCoy had unwisely boasted that he would graze the cabbage plants at the head of Wind River.

#### ATTACK ON THE BLAKE CAMP

Toward the close of the war two incidents were historic. On a raw and stormy spring night in 1908 Robert Meigh and two other employes were sleeping with a drop band belonging to J. W. Blake of Lander. Blake was in the hospital and his employes were on leased land inside the Shoshone Indian Reservation—not far from the Big Horn Basin where so many violent attacks had taken place. Just after midnight, galloping hoofs and a volley of shots wakened them from their uncomfortable slumber on the wet ground. Rough voices ordered them out, into their boots, and to march to the wagons. One of the herder's boots was frozen, but as he hopped, kicked, and cursed, putting them on, he frightened the night raiders' horses. A few shots in the air and threats of instant death soon quieted his actions.

An attempt was made to burn the wagons, though a drunken visitor was asleep in one, but the wetness of the night defeated the effort. So the raiders chopped spokes from the wheels and turned the canvas-topped wagon-box upside down. When daylight appeared Meigh and his two herders were started toward the rising sun with a fusilade of shots, and the raiders began destroying the sheep.<sup>44</sup>

Out of range, the three men waited until the firing ceased and the riders departed. They then found their inebriated guest still asleep, but 350 sheep had been killed or wounded. Lambs were searching for their dead mothers or bleating piteously beside their lifeless

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<sup>44</sup> "Casper (Wyoming) Daily Tribune, April 6, 1908.

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forms. Bereaved ewes hung over their dead offspring until they were loaded in one of the wrecked wagons so as to gather the band. Some remnants of food and coffee were served, the best wagon was righted, saplings were patiently fitted for spokes and laced with withes to hold them, and the trip to town started. In Lander, word was received of Mr. Blake's death, throwing the responsibility on Meigh. He immediately issued six-shooters to his men, but like the proverbial Swede in most herders' jokes, he felt "that was a hell of a way to run sheep."

#### THE TENSLEEP MURDERS

The most notorious episode in the Big Horn Basin War, "The Tensleep Murders," occurred in 1909. In possibilities for trouble it overshadowed any other incident, for one of the victims, Jules Lazair, was a citizen of France. He was temporarily employed by Joseph Emge, a beginner in the sheep business who had recently switched from cattle. Emge was reputed to have become unpopular as a cattleman by failing to provide enough bulls to insure a standard calf crop.<sup>45</sup> Hence he retaliated by buying sheep. The third victim was Joseph Allemand, a sheepman of long standing and good reputation.

In early 1909 the three men, with two additional herders, were trailing their sheep to the high ranges east of the railroad. They had been warned not to cross the cattle country, but the drive around it was so circuitous they decided to risk it. On the night of April 3 they passed beyond the forbidden area and reached the range of George Taylor,<sup>46</sup> another sheepman. Camp was made on Spring Creek, a small stream that flows into the Nowood River south of Tensleep. Having left the cattle district, they relaxed their vigilance. Emge, Allemand, and Lazair slept in one wagon on a high point north of the creek, while

Pierre Cafferall and Charles Helmer, the additional herders, were in another wagon on the south side. Allemand was not unpopular with the cattlemen, and they apparently did not expect him to be with the sheep that night.

Shortly after the tired group had gone to sleep, a band of armed men took the two herders south of the creek as prisoners,<sup>47</sup> and marched them a few hundred yards away where they were held under guard. When the action was complete, they were ordered to move on without looking back.

According to the counsel for the prosecution at the ensuing trial, the mob had approached Emge's wagon and opened fire from all directions. The wagon-body was riddled with holes, and one of the raiders began to pile sagebrush against it to burn it. Emge and Lazair were killed at the first volley, but when the preparations for the fire were completed, Allemand came out of the wagon, apparently wounded. One of the raiders ordered him to throw up his hands, which he did immediately, but another leveled his gun and shot, saying "This is a hell of a time of night to come out here with your hands up." The wagon was saturated with coal oil and set on fire, after which the other wagon, the supply wagon, and a buckboard were burned. Several sheep dogs and about twenty-five sheep were killed. The telephone wires had been cut so that no word reached Basin (then the county seat) until the next day.

Sheriff Alston and a deputy, and County Attorney Metz, went to the scene of the assassination immediately. . . . The sight that greeted

<sup>45</sup> Agnes Wright Spring. Letter, December 30, 1940.

<sup>46</sup> George Taylor was a nephew of the famous Robert Taylor, Wyoming's biggest sheep operator.

<sup>47</sup> Details from the *Thermopolis (Wyoming) Record*, April 10, 17, 24; May 1, 8, 15; October 23; November 6, 13, 1909.

them was almost too horrible for belief. The bodies lay where they fell, those of Emge and Lazair in the charred ruins of the wagon, burned almost beyond recognition. An automatic revolver and rifle lay under Emge's body and a rifle on top of the body of Lazair.<sup>48</sup>

There was a sensational report yesterday morning that the sheriff and a deputy had been killed by the raiders, but this was wholly unfounded. The officers are not making public what they find in the way of incriminating evidence. Twenty-five hundred dollars' reward has been offered for the conviction of the assassins, and it is thought the state will add considerably more.<sup>49</sup>

Sheriff Alston found the track of a half-soled boot with the heel worn off on one side, but a light snow obliterated other tracks. The bodies of Allemand and Lazair were taken to a neighboring ranch. While the sheriff was still there, two men (one of them Herbert L. Brink) came in to inspect the bodies. As Brink left, the sheriff noted that his boot was half-soled and worn off at the heel, the same as the tracks he had seen.<sup>50</sup> The *Thermopolis Record* of April 17 reported the arrest of Ed Eaton, an ex-cattleman who had recently failed as a saloon proprietor, and who was then riding herd for a local cattle owner. On the 24th it reported the arrest of Brink. Rewards for the conviction of the murderers then totaled fifty-five hundred dollars and a subscription paper to raise twenty thousand dollars additional was being circulated among the sheepmen.

The grand jury commenced sitting the last of April, and its sessions extended into May. More than fifty witnesses were examined and the *Thermopolis Record* of May 8 reported seven indictments, with three charges of murder and one of arson in each indictment. Those named were George H. Saban, M. A. Alexander, Thomas Dixon, William Keyes, Charles Farris, Ed. Eaton, and Herbert L. Brink.

As was predicted, the charges implicate some of the prominent men in their neighborhood and have caused a great sensation. Saban and Alexander are particularly prominent. The arrest of Saban, while causing a sensation, was

not a surprise, as persistent rumor, that would not down, has connected him with the raid from the first.<sup>51</sup>

A week later the defense fell completely apart.

Charles Farris and Albert F. Keys, the latter well known as "Bill Kise," two of the seven men under arrest for the triple murder at Tensleep, have made a full confession. . . . The confession is in the hands of the prosecution and absolutely none of its contents have been made public. Speculation is rife as to how complete the confession is but there is little doubt that it fully covers the ground. Owing to the high feeling on both sides—an outraged public on one side and the friends of the prisoners on the other—it was thought best to remove them from Basin for safety. Accordingly Judge Parmalee made an order transferring Farris and Keys to Sheridan and they were taken there Monday night by Joe LeFors. Report has it that both men were induced to join the raid on the promise that no killing would be done, and that they claim they did none of the shooting, although they were with the party, and that consequently they were easily brought to the confession.<sup>52</sup>

The case was tried in early November. All but one of the jury came from west of the Big Horn River—outside the influence of the locality where the crime was committed. The prosecution built such a case, based on the two confessions, that Brink was quickly convicted and sentenced to be hanged. Soon the remaining four confessed—Saban and Alexander to murder in the second degree and Eaton and Dixon to arson. The first two received sentences of twenty to twenty-six years and the second pair three to five years.

Brink's sentence was commuted to life imprisonment on November 19, and his technical term finished in 1944. Saban

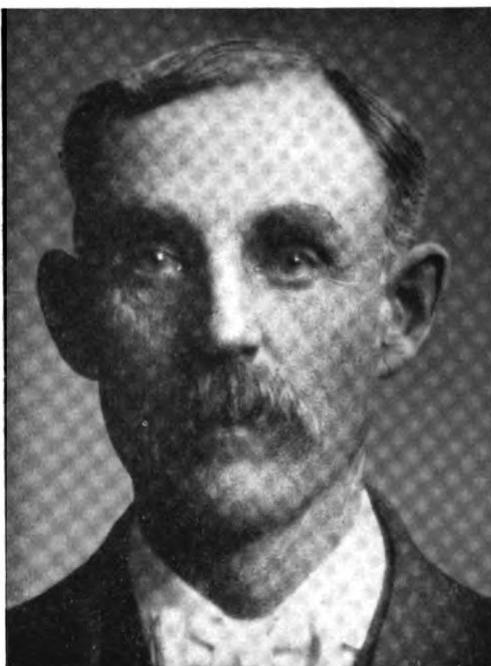
<sup>48</sup> Charles Helmer, one of the surviving sheepherders, believes this victim may have been Wash Olsen, a hired rider for the cattlemen. See report of Arlene Robinson, *Thermopolis, Wyoming*, filed with Federal Writers' Project (W.P.A.), Cheyenne, Wyoming.

<sup>49</sup> *Thermopolis Record*, April 10, 1909.

<sup>50</sup> *Laramie Boomerang*, April 27, 1909.

<sup>51</sup> *Thermopolis Record*, May 8, 1909.

<sup>52</sup> *Ibid.*, May 15, 1909.

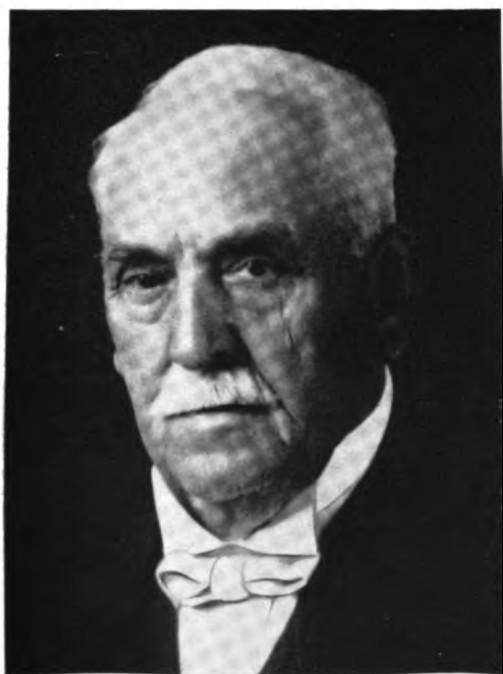


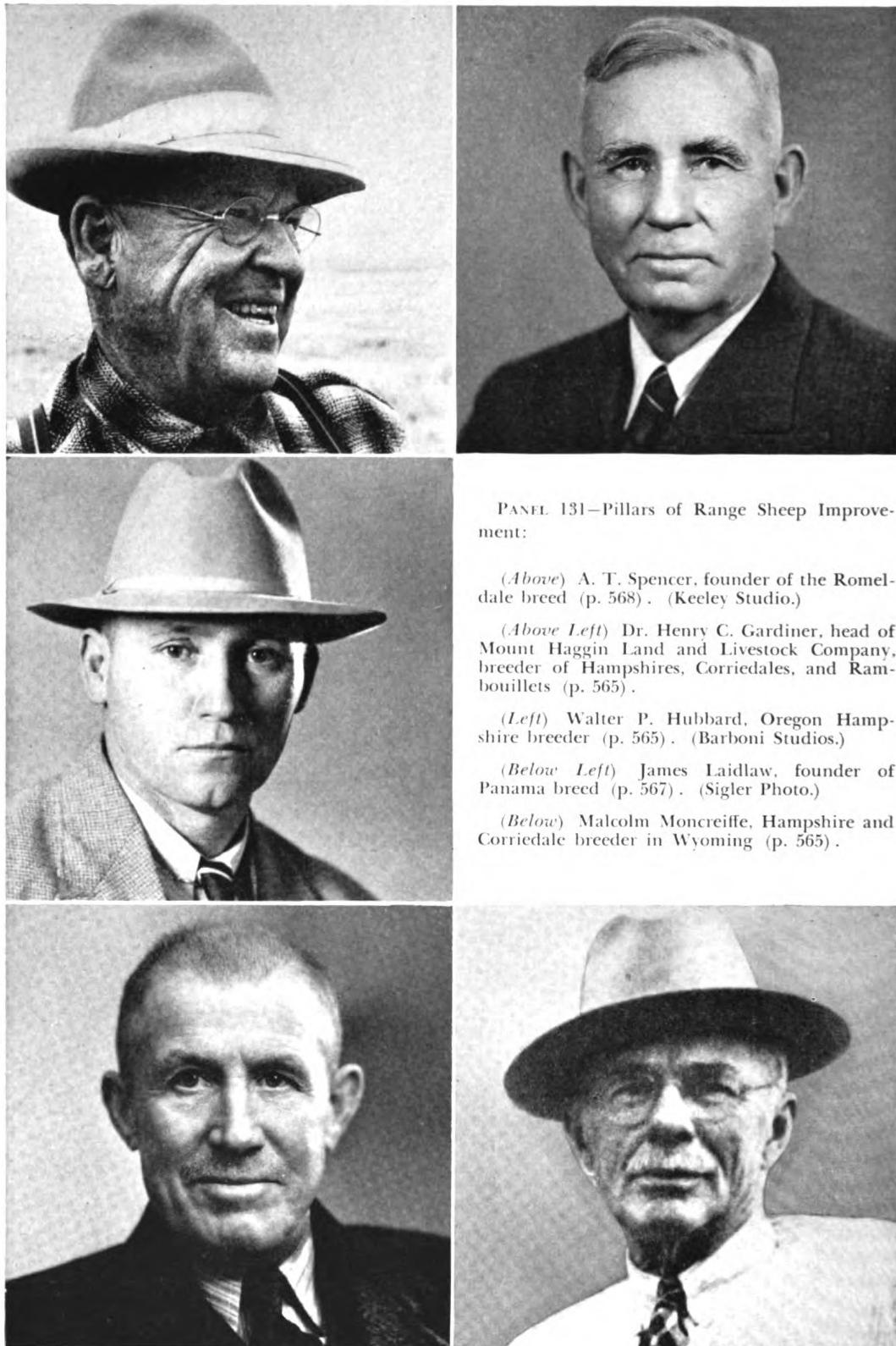
PANEL 130—(Above) A. A. Wood, Michigan Rambouillet breeder (p. 95).

(Above Right) E. M. Moore, Michigan Rambouillet breeder (p. 95).

(Below Right) Peter Pauly, Montana Rambouillet breeder (p. 564).

(Below) Paris Gibson, Montana breeder of American Merinos (p. 564).





PANEL 131—Pillars of Range Sheep Improvement:

(*Above*) A. T. Spencer, founder of the Romel-dale breed (p. 568). (Keeley Studio.)

(*Above Left*) Dr. Henry C. Gardiner, head of Mount Haggan Land and Livestock Company, breeder of Hampshires, Corriedales, and Ram-bouilletts (p. 565).

(*Left*) Walter P. Hubbard, Oregon Hampshire breeder (p. 565). (Barboni Studios.)

(*Below Left*) James Laidlaw, founder of Panama breed (p. 567). (Sigler Photo.)

(*Below*) Malcolm Moncreiffe, Hampshire and Corriedale breeder in Wyoming (p. 565).

early escaped from a prison road gang and disappeared. Rumors reported him at various points but he managed to keep out of further contact with the law. The international angle was satisfied after the trial. The French consul in Chicago obtained the complete court record and for a short period it was expected that France would ask indemnity for Lazair's death. This did not develop, however, but when the case was finally settled it was rumored that the United States Government paid the French Government twenty-five thousand dollars to indemnify the family of Lazair.

#### TERMINATING THE DISPUTES

The last sheep raid in Wyoming occurred in February, 1912, with bitter weather and snow-covered ground. Albert Johnson and his partner, Charles Wilson, crossed Crow Creek with a band of sheep and camped in the hills. The five raiders beat the wagon-mover very badly, drove the band back across the creek, burned the wagons, and killed about sixty sheep. The Wyoming Wool Growers' Association took part in identifying the marauders and three men were arrested—Elisha Hinton, Ernest Rema, and Ben Rema. They were arraigned in Dubois before Justice W. K. Carson. Bound over to the District Court, they were found not guilty on May 31, 1912.

Smith<sup>53</sup> enunciated the chief cause of cattle-sheep strife when he stated that "if stock owners could obtain absolute control of their ranges under United States laws . . . peace and quiet would supersede the present turmoil." Lack of any right to the grass and water used, inability to defend established business by law or governmental authority, and the foul trail of political patronage, all combined to leave an operator on long-occupied range no more security than yesterday's stranger. The first-comer's only protection was his willingness to

defend himself and his possessions by force. Desire of distant Washington officials to maintain their individual control nullified local efforts to establish security.

The first step leading toward order was the establishment of the Forest Service in 1905. This placed most of the summer range under grazing control and permitted only properly accredited flocks and herds on the lands. Nearly a decade was required to remove the seed of conflict, but only one attack on sheepmen took place within National Forests after they were established. This occurred in 1918, in the Gunnison Forest in Colorado, at Campbell's sheep camp on Oh-Be-Joyful Creek. The herder was bound hand and foot, and five hundred sheep were driven over a cliff.<sup>54</sup> The Forest Service established order that finally ended the mutual destruction and "brought civilization to the range."<sup>55</sup>

This did not solve the whole problem, for it was still possible for tramp sheepmen to get summer grazing leases in the Forests and roam the public domain in the winter. The Taylor Grazing Act of 1934 stopped this, as the new standard of commensurability for a permittee required buildings, suitable headquarters, and proportionate patented land.

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The cattle-sheep wars present the most sanguinary page in the history of our public lands. Every event leading to violence was preceded by events equally troublesome, viewed from abstract right and justice. The man who was on the ground was limited, in the amount of land and grazing he might acquire, by absurd regulations based on a productivity equal to the Mississippi Valley. He

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<sup>53</sup> Briggs, "The Early Development of Sheep Ranching in the Northwest," 179.

<sup>54</sup> Raine and Barnes, *Cattle*, 263-64.

<sup>55</sup> Mrs. Mary Leckie Roberts, Pinedale, Wyoming. Statement to C. E. Favre, U. S. Forest Service, Ogden, Utah, quoted to author.

was given permission to use the public lands in general, but no right to use any specifically or exclusively. In theory, everyone else had the same right to use a particular range that he did.

What else could have been expected than a sharp contest to garner the grass before a competitor could. And what could have been more natural than the anger and combative action each prior user exhibited, when a late-comer piled

new flocks of sheep or herds of cattle on what he called "his" range, based on prior use and investment in a ranch headquarters, water holes, and hayland. The eastern incompetents whose policies permitted late-comers to encroach on the economic units essential to business operation never appeared in the public eye, but their hands were just as bloody as those of "Diamondfield Jack" and Herbert Brink.

*.... Then to divide the times:  
So many hours must I tend my flock;  
So many hours must I take my rest;  
So many hours must I contemplate;  
So many hours must I sport myself;  
So many days my ewes have been with young;  
So many weeks ere the poor fools will ean;  
So many years ere I shall shear the fleece;  
So minutes, hours, days, months and years  
Pass over to the end they were created.*

—Shakespeare, *King Henry VI*, Part III, Act II

♦ 24 ♦

## American Efforts in Sheep Breeding

EUROPE could not provide a variety of sheep exactly adapted to the untamed American environment which the Conquistador and Puritan Cavalier faced. The difficulties which confronted the original settlers appear in earlier chapters. Various efforts were made to solve sheep problems—ranging from the introduction of the Romney Marsh sheep to meet swampy conditions around Boston Neck, to the experiments of George Washington in utilizing both British and Persian breeds to improve his Arlington flock.

In the earlier days, effort to improve individual flocks was limited to introducing European breeds from regions whose climatic conditions resembled those of the new colonies. Few attempts were made to create breeds that were truly American. Efforts at selection led to the public shearings, and these were soon utilized as performance records.

Importations of pure breeds, ranging from the Spanish Merino at the opening of the nineteenth century to the Corriedale and Karakul early in the twentieth, provide tales familiar to all sheepmen, but the record of maintaining a balance between meat and wool on the range, through crossbreeding, has seldom been presented.

The annals of sheep improvement range from the primitive efforts of the *padres* and their Indian charges to develop a sheep suited to the dusty Southwest, where “the land of little rain” precluded thorough wool scouring, to the attempts of the inventor of the telephone, Alexander Graham Bell, to synthesize twin-bearing and triplet-bearing ewes. Neither of these have had much effect on our modern sheep industry, but both constitute interesting efforts.

\* \* \*

Previous to 1800 the carcass quality of sheep seems to have been incidental, and full attention was devoted to wool. In the Southwest, under the Catholic clergy, emphasis was continuously placed on the manufacture of woolens. Not only were the fabrics desired for protection, but the natives had to be taught modesty as prescribed by the Church. Hence the effort to convert this part of the nation from nudity was really tremendous.

Simple hand processing of the wool was difficult around missions because of the shortage of water. Shearing was unknown. The fleece was normally pulled from the sheep only when the Indian wanted to weave, or was cut off with a knife, wasting nearly half of

what the sheep produced. When it was free from the animal, the dust was shaken from the fleece, or it was beaten with sticks and blown out by holding it in the wind. The wool was then washed with a limited amount of water, after which the burrs and remaining adherent materials were removed by hand. This called for a relatively coarse fiber.

In such selection as was practiced, emphasis was placed on a fleece that was not too greasy. Oiliness produced knots in the yarns and imperfect weaves. The fine crimp in Merino fibers quickly led to snarling, while the coarser, straighter staples, were easily sorted, combed, and spun. Hence the oldest American variety of sheep was descended from the low quality strain introduced by the Spaniard—the *churro*—and was preserved in the hands of a tribe of Indians, the Navajos,<sup>1</sup> who lived under conditions much less advanced than the pueblo-dwelling tribes supervised by the Spanish *padres*.

#### NAVAJO SHEEP

The Navajo sheep developed in a semi-arid region—provided on the lower elevations with desert vegetation only, but with supporting piñons and junipers on the wooded slopes. The plants of the area consisted of grass, browse, and weeds suitable for maintaining livestock, though depleted seriously by bad grazing practices. The Navajos corralled their flocks near their hogans each night instead of camping out with them, and the areas surrounding the corrals were denuded of vegetation and badly eroded. Despite this situation, however, sheep constituted their chief production. In addition to using them for food, the Navajos developed three sources of cash income: the spring sale of wool, the fall sale of feeder lambs, and the year-round sale of rugs and blankets manufactured from the fleeces.

There are no descriptions of the sheep

left behind by Coronado or introduced by Oñate that would prove informative to an animal husbandman, but their descendants suggest they were coarse wooled, with considerable kemp, or hair, interspersed among the woolen fibers. Gregg infers in 1834 that the wool was long, coarse, and practically worthless as an article of commerce since from Santa Fe back to Missouri, it "barely pays a return freight for the wagons that would otherwise be empty."<sup>2</sup> In Missouri it often brought as little as fifteen cents per pound, but it cost only three or four cents a pound in New Mexico, and a pound usually represented the complete production of a single sheep.<sup>3</sup> Letterman wrote in 1856:

The wool is coarse and never shorn. . . . The males are permitted to run with the herds at all seasons, and the young, consequently, are born in the winter as well as in the spring and autumn, and many die. For this reason the flocks do not increase with the rapidity generally believed by those not much acquainted with these people. The mutton is excellent in the autumn, when the sheep have had the benefit of the summer's grazing, though we think not at all superior to that obtained in the eastern and mountainous portions of the United States.<sup>4</sup>

Natural selection obviously had the greatest effect in shaping the type and quality of the Navajo flocks. Whether the survival of the fittest led to hardier sheep in the hands of the Navajos than among the Mexicans is a question, though the statement was frequently made by early observers. However, the point is purely academic, since Kit Carson, in the campaign of 1863–64, destroyed enough of the old-time Navajo sheep that their bloodlines probably do not persist at all in the modern stock.

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<sup>1</sup> See General Appendix D.

<sup>2</sup> Gregg, *Commerce of the Prairies*, Part II, 89.

<sup>3</sup> *Ibid.*, Part I, 323.

<sup>4</sup> Jonathan Letterman, "Sketch of the Navajo Tribe of Indians, Territory of New Mexico," *Annual Report of the Smithsonian Institution*, 1856, 283–97.

When the tribe returned to the reservation, after its transplantation to Bosque Redondo, the Government distributed fifteen thousand sheep and goats among them. No attempt was made to procure high quality, since the Superintendent of Indian Affairs for New Mexico merely advertised for bids on a stated number of sheep—no bids proving satisfactory. A private transaction was finally arranged through Raphael Romero to obtain fourteen thousand sheep and a thousand goats at two dollars a head from his father, Vicente Romero of La Cueva, Mora County, New Mexico—fifty-odd miles northeast of Santa Fe. The contract was signed October 23, 1869, by Vicente Romero, Lehman Spiegelberg, and Simon Seligman,<sup>5</sup> though the functions of the two latter do not appear from the document. Delivery at Fort Defiance was specified for the fall of 1869, but was delayed until the following spring. At the first issue, each Navajo—man, woman, and child—was given two sheep or goats, and in 1872 each was issued an additional animal from a separate purchase of ten thousand sheep.<sup>6</sup>

First efforts to improve type and quality were made by the United States Indian Agent, D. M. Riordan, in 1882–84. He attempted to better the yield, length, and quality of fleece, to induce the Indians to eat their cull sheep and save their better ones for breeding, and to set up a plan whereby the Indians could “earn” the use of imported rams from California, which were fifteen-sixteenths Merino and sheared fifteen to twenty-five pounds of fleece.<sup>7</sup>

Riordan's successor, J. H. Bowman, tried in 1884 to add eight hundred more ewes of the same quality as the California rams. At the same time he developed a plan of buying rams outside the reservation to hasten the job of improvement. Bowman soon discovered the unsuitability of Merino wool for hand

spinning and weaving, and in the fall of 1884 made his first request for Cotswolds. Thereafter he asked for their purchase repeatedly, but the agency records do not indicate that the breed was ever obtained. After 1900 almost every Indian agent tried introducing improved breeds. Blunn says:

In addition to sheep introduced by Indian agents, many private importations have been made by traders and others interested in the welfare of the Navajos. Each made an individual and sincere effort to improve the sheep of the Indians, but without regard for the fundamentals of animal breeding. Further, most of the superintendents remained only long enough at one point to start a breeding program before being transferred elsewhere. Their successors usually dropped the programs already under way and instituted plans of their own, often using a different breed of sheep. The multiplicity of sheep types introduced without any organized plan has resulted in a heterogeneous and very inferior sheep.<sup>8</sup>

Illustrative of such an attempt was the introduction of Shropshires shortly after 1900. The Secretary of the Shropshire Record Society, Mortimer Levering of Lafayette, Indiana, and a leading breeder, Dr. G. Howard Davison of Millbrook, New York, started a Shropshire ram sale in connection with the International Livestock Exposition. Four hundred rams were consigned, but owing to lateness in the season only one bidder appeared, and he took only five rams.

<sup>5</sup> P. M. Hamer, Chief, Division of Reference, The National Archives, Washington, D. C. Letter to Floyd W. Lee, President, New Mexico Wool Growers' Association, San Mateo, New Mexico, March 4, 1939. See General Appendix F.

<sup>6</sup> Report of the Commissioner of Indian Affairs, No. 49, Santa Fe, Navajo Agency, 1872.

<sup>7</sup> D. M. Riordan, Reports to the Commissioner of Indian Affairs, Navajo Agency, Fort Defiance, Arizona, 1882–84. Entries blotter copies of correspondence for March 12, 1884, 68; April 10, 1884, 109; April Monthly Report, 1884, 211; May Monthly Report, 1884, 308–12; quarterly report to Secretary of Interior, January 1 to April 10, 1883, 35.

<sup>8</sup> Cecil T. Blunn, “Improvement of the Navajo Sheep,” *Journal of Heredity*, 31, No. 3 (March, 1940): 104.



FIG. 132—Crosses of Shropshire blood weakened the natural flocking instinct in Navajo sheep.

A group of Chicago men, who believed that an opportunity for good stock was being overlooked, bid in the remaining rams and shipped them to George Webster's ranch in the Pecos Valley of New Mexico. A plan was formed to put them out with the Navajos, and Webster paid for their progeny twenty-five cents a head above the prices customarily offered the Indians. The first crop of lambs showed a remarkable improvement both in flesh and quality, and new Shropshire rams were bought for several years. After the fifth season, however, the mutton blood became so concentrated that the sheep lost their flocking instinct, and the extra herding required caused the project to be abandoned.<sup>9</sup>

To restore the flocking habit crosses were made with fine-wooled bucks, but the staple shortened too much and the fleeces became too greasy. In 1934 Amsden wrote:

The Navajo rug is becoming a mass of knots, unevenly scoured and unevenly dyed, with every passing year.<sup>10</sup>

The knots resulted from the fine fiber,

while the uneven dye was due to surplus "grease" in the fleece.

To remedy this situation, the Federal Government, through the Indian Service and the Bureau of Animal Industry, established the Southwestern Range and Sheep Breeding Laboratory at Fort Wingate, New Mexico. A flock of approximately eight hundred head of old type Navajo sheep was assembled, to restore the fleece character that made it so adaptable to the Indian hand weaver. Part of the flock was set aside for a selection experiment to improve the quality of the wool, to reduce the number of hairs, and to make the wool conform more readily to the Navajo industries. Another part was crossed with rams of apparently suitable breeds (including Karakuls), in the hope of providing a fleece that would be valuable both to the commercial trade and the Navajo

<sup>9</sup> Arthur G. Leonard, President, Union Stockyard and Transit Company, Chicago, Illinois. Interview with author, November 7, 1938.

<sup>10</sup> Amsden, *Navajo Weaving*, 200.

weavers. With the direction of breed goals in positive hands, the Navajo sheep faces a more satisfactory future.

#### BREEDS IN THE BRITISH COLONIES

Breed records of sheep on the Atlantic Seaboard preceding the American Revolution are practically nil. There was little publishing in the Colonies except religious works and almanacs, hence most information on sheep deals with their arrival, their numbers, or their fleeces. It confined knowledge of their general traits to descriptions of imported sheep as they appeared in their native habitat. The English traveler who recorded his adventures and experiences "in the States" did not arrive until after the American Revolution, while those who observed livestock from the breeder's viewpoint did not visit this side of the world until the nineteenth century had begun.

Up to the close of the American Revolution the accepted method of livestock improvement was by crossing. Practically all British livestock was heterogeneous in blood, the forces limiting hereditary variability being isolation and geographical barriers. No one appreciated the desirability of establishing types or of getting animals to breed true to them. The favored method was to introduce desirable sires from distant countries, and control the quality of the next generation through them. With the diversity of blood that existed, single sires seemed to perform wonders of improvement, and individuals, rather than types or breeds, attracted the agricultural fancy.

Along the Atlantic the oldest, strictly American breed of sheep was the "Smith Island," a feral race that roamed an island of this name off the Virginia Coast. It was first described by Custis in 1808,<sup>11</sup> though the sheep were put on

the island before 1780. Such quality of fleece and fixity of type as they showed were evidently due to isolation of a good quality strain, gathered there in sufficient numbers to overcome deleterious effects of inbreeding.

The chief value of the breed lay in the fleece which "was even described as the first in the world, and as exciting the praise and astonishment of all who saw it."<sup>12</sup> Unquestionably this fleece was superior to the wool of Virginia, and James Madison especially admired its fineness, though regretting its light weight. While the Merino showed a finer fiber, Custis felt that the Island sheep produced a wool that would satisfy every requirement for which Merino fleece would be used, and had a longer staple—in full growth, five to nine inches.

Custis once planned a breeding station on the Island, from which to stock other islands along the coast as well as the mainland—but nothing came of the proposal. In 1802 the number of sheep on the Island was between five and six hundred, but the depredations of thieves and hunters reduced the numbers seriously by 1808, and shortly thereafter the breed became extinct.

The best known early American breed was the Arlington Long-Wooled, founded by George Washington and perfected by his adopted son, George Washington Parke Custis. When Washington returned to Mount Vernon from the presidency, he immediately set about repairing the degeneration in his flock of sheep. The best mutton sheep in Virginia had been imported from Curaçao off the north coast of South America, and Washington had previously brought in some descendants of this breed. Onto them

<sup>11</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 67.

<sup>12</sup> *Ibid.*, *Special Report on Sheep*, 67.

he crossed hairy-coated West Indian sheep which had been given to him by a Mr. Athol of Antigua, in the island of St. John. The hair was soon replaced by a soft wool, and the cross was of excellent mutton quality.

In 1797, a Baltimore friend presented him with a Persian ram and ewe, and from this mating came the foundation generation of the Arlington Long-Wooled. When the livestock at Mount Vernon was dispersed in 1802, Custis bought the Persian ram for fifty dollars, an unheard-of price, and paid fifteen dollars each for two Bakewell Leicester ewes which Washington had acquired.

Custis devoted particular attention to length of staple and quality of fiber, stating that it was easier to start wool improvement with a long fleece and work toward quality than to start with a quality fleece and lengthen the staple. Since Custis practiced inbreeding, putting the famed ram "Bakewell" back on his own daughters, he probably faced fewer problems of declining vigor and constitution by starting from the coarser stock.

"Bakewell," the prize yearling ram at the 1805 Arlington Sheep Shearing, was bred by Colonel Thomas L. Lee of Loudoun, Virginia, and was reputed to have descended from Washington's flock. His fleece weight was 12 pounds 5 ounces compared with a shorn weight of 140 pounds. Custis rather succinctly described him as a lengthy sheep, with short legs and no horns. At the same shearing of 1805, Custis entered four Arlington ewes which yielded respectively  $7\frac{1}{2}$ ,  $7\frac{1}{4}$ ,  $6\frac{3}{4}$ , and  $6\frac{1}{2}$  pounds of wool. A ram lamb at two and a half months weighed  $87\frac{1}{2}$  pounds. Until 1811, the Arlington breed compared very favorably with the Merinos in the shearings, especially in the proportion of clipped fleece to the shorn weight of the animal.

Custis also held the size of his sheep down in proportion to his feed. He aptly

said: "He that breeds beyond his pasture is like him that lives beyond his income, and invites ruin upon himself and his descendants."<sup>13</sup> Apparently Custis developed an excellent breed that was smothered beneath the Merino craze of the early nineteenth century.

From the standpoint of "Mendelian heredity," the most interesting breed of early sheep was the Ancon or Otter, which presented a typical unit character in a mutation to achondroplasia,<sup>14</sup> the so-called "bull-dog" type. In 1791 Seth Wright, who resided on the Charles River ten miles out of Boston, discovered that one of his fifteen ewes had dropped a male lamb of "singular appearance, differing, for no assignable reason, from its parents by a disproportionately long body and short bandy legs, whence it was unable to emulate its relatives in scaling the neighbor's fences and luxuriating in forbidden pastures."<sup>15</sup> Wright raised the abnormal ram for breeding, and the first season obtained two of the same kind among his progeny. The sheep, and the breeding results, were described by Carman:

Hence proceeded a strongly marked variety of this species of animals . . . called by the name of the Otter breed. This name was given from a real or imaginary resemblance to that animal, in the shortness of legs and length of back, supposed by some to have been caused by an unnatural intercourse; by others, perhaps as fancifully, from fright during gestation. . . . The most obvious difference in its skeleton from the skeleton of the common sheep, so far as a superficial observation extended, consisted in the greater looseness of the articulations, the diminished size of the bones; but more espe-

<sup>13</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 64.

<sup>14</sup> Achondroplasia is a failure in the development of cartilage, which results in short legs, open shoulders, and protruding lower jaws. There are varying degrees of failure in cartilage development, and the Ancon sheep corresponded anatomically most nearly to the dachshund in dogs or the Dexter-Kerry in cattle, but did not have the undershot jaw as shown by the bulldog.

<sup>15</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 70-71.

cially in the crookedness of its forelegs, which caused them to appear like elbows. . . . The inequality of form seemed to be confirmed in the blood. . . . When both parents were of the Otter or Ancon breed, the descendants inherited their peculiar appearance and proportions of form. . . . When an Ancon ewe was impregnated by a common ram, the increase resembled wholly either the ewe or the ram. The increase of a common ewe, impregnated by an Ancon, followed either the one or the other, without blending any of the distinguishing and essential peculiarities of both.<sup>16</sup>

A number of interesting facts were observed. In several cases ewes bore twins, one of which was normal, the other Ancon. The latter type of lamb was more delicate just after birth and frequently required assistance the first time it was suckled. Slower maturing, it did not fatten as readily as ordinary sheep, although this may have been due to lesser ability to rustle. While it was an advantage to the owner and his neighbors that it could not jump fences, it did not trail well for the market drovers. The butcher, also, did not like the carcass because it was smaller and less salable. In the early half of the last century, the Ancons were widely disseminated throughout New England and their numbers were quite large, but the last flock of eight head disappeared from Rhode Island in 1876.

While the Smith Island breed was produced by a combination of isolation with natural and artificial selection, the Ancon by mutation, and the Arlington by an intelligent blending of strains followed by selection, one other race, the Improved Kentucky, arose through an attempt to balance types by cross-breeding. This breed was originated by Robert Scott of Frankfort, Kentucky, in the mid-forties, with a flock of thirty so-called native ewes, to which he first mated a Merino ram.

The yearling ewes of this cross were bred to an imported Leicester ram. The ewes of this cross were served by an imported ram of the

Southdown breed. The products of this cross were then bred to a ram of mixed blood, three-fourths Cotswold and one-fourth Southdown. The next two crosses were made by Cotswold rams, and the next by an Oxford-Down ram. The produce of the last cross were bred to Cotswold rams again. This brought the flock up to 1855, when a mixed Cotswold, Oxford, Leicester, and Southdown ram was brought into service. After this, the rams produced by this very mixed breeding were used.<sup>17</sup>

At the close of the Civil War considerable interest was evidenced in this breed and it spread quietly throughout parts of Kentucky and the Southeast. Sufficient importance was attributed to it that the United States Commissioner of Agriculture included in his annual report of 1866<sup>18</sup> an article on the breed, written by Mr. Scott. Powers acknowledged in his "American Merino" that the breed was capable of propagating itself with the certainty of the average purebred.<sup>19</sup> Its limitation lay in the fact that Scott could not keep sufficient breeding stock, and by the end of the century the breed had practically disappeared.

#### SHEARING CONTESTS

The first attempts to establish a standard of performance for sheep breeding came through the public shearing trials. Such shearings, as demonstrations of what individual sheep could do, were common in France and Germany before 1800. The first competitive shearing in the United States, with any semblance of controlled conditions, occurred April 30, 1803, when George Washington Parke Custis inaugurated the annual public sheep shearing at Arlington.<sup>20</sup> Within four years, other shearings were held elsewhere in Virginia and Maryland.

<sup>16</sup> Carman, Heath, and Minto, *Special Report on Sheep*, 71.

<sup>17</sup> Henry Stewart, *The Shepherd's Manual*, 91-92.

<sup>18</sup> Robert W. Scott, "Improved Kentucky Sheep," *Report of the Commissioner of Agriculture for the year 1866*, 334-40.

<sup>19</sup> Powers, *The American Merino*, 53.

<sup>20</sup> See pages 549-50.

After the close of the War of 1812 such demonstrations took extraordinary hold in Massachusetts, Vermont, New York, and Ohio.

Originally the test was comparative, to see which animals sheared the most. Then the relation of fleece weight to shorn body weight was considered—this was the basis of award after the first Arlington shearing—and still later the number of days of growth, the degree of cleanliness, and the kind of feeding were included.

Robert Livingston, in 1807, published some figures showing the advantages of using Merino blood. Six purebreds of all ages (one of which died three months before the shearing season but which yielded 4.5 pounds of fleece) sheared 5.5 pounds of unwashed but very clean fleece per head; twenty-four three-quarter-breds averaged 4.25 pounds of less clean wool; thirty half-breds averaged 4.65 pounds; and seventeen common sheep averaged 3.68 pounds. The purebred fleece sold at ten shillings per pound, the three-quarters and half-breds at five shillings, and the common wool at two shillings six pence.

Two years later the shearing at Clermont showed more impressive results, as there were more degrees of breeding and prices were higher. Purebred fleeces brought \$2 a pound, and seven-eighths bloods \$1.50. In addition, his common ewes sheared only one pound of wool for 20 pounds of shorn body weight, while his half-blood and three-quarter blood Merinos sheared one pound of wool to 10½ pounds of shorn body weight. Chancellor Livingston even went so far as to make a rough determination of the values produced by the feed, pointing out that one pound of common wool worth 37½ cents cost as much in grass and hay as two pounds of wool from his three-quarter bred Merino wethers, worth \$2.50.

In Massachusetts, Connecticut, and Vermont, the public shearings were not as directly competitive as at Arlington, but approximated Livingston's pattern. Each of the famous flocks held annual public shearings under closer and closer supervision. Those best known advertised their shearings several weeks ahead, and the occasions attained high social significance. Such flocks as those of W. S. and Edwin Hammond, A. L. Bingham, S. W. Jewett, E. S. Stowell, Charles Rich, E. R. Robinson, Tyler Stickney, R. P. Hall, and various other breeders of Addison and nearby counties in Vermont held public shearings at which the rivalry was by no means confined to the shearing.

The following description of the A. L. Bingham public sheep shearing of May 18–19, 1842, is abridged from an undated edition of the *Middlebury Register*, but shows the competition in hospitality and entertainment:

We found everything prepared for the festival, in neatness and order, and on a plane comporting with the large-hearted generosity and good taste of our friend. A large bay in the south end of his barn was provided with a good clean floor, with seats raised at the end of it, which overlooked the shearers, and which were provided for the accommodation of the ladies. On a scaffold in the north side of the barn over the stable, seats were provided for the Middlebury brass band, from which they discoursed most excellent music to the shearers and the assembled throng. . . . There was a large gathering of our most intelligent and thrifty farmers, from Addison and neighboring counties, and some from out of the state.

The shearing commenced with yearling ewes, the most splendid specimens of the sheep kind we have ever witnessed. They were covered with wool on every part except their noses and tips of their ears, and were greatly admired by everyone for their fine healthy and vigorous appearance. In order that the record might be kept in such a manner that no charge of deception or unfairness could be made, on motion of J. A. Beckwith, Esq., it was resolved to organize a meeting of those present, and appoint a committee to take the weight of the sheep sheared and their fleeces, and report to the meeting at a subsequent time. . . .

The shearing continued until noon, when the

concourse, marshaled by Colonel Church, sheriff of Addison County, and escorted by the band, proceeded to a superb collation prepared in the open air by Mr. Bingham, consisting of the choicest viands and luxuries of the season, which were provided in the greatest abundance. After dinner the shearing proceeded, accompanied by a fine display of Black Hawk horses, which gave interest and attraction to the scene.

While the first day was gay, the second was even gayer. The "Amphions," a company of "concert singers unrivalled for the harmony and effect with which they give their inimitable songs and ballads," entertained a far greater crowd than the day before, from the seats of their "barouche." After a dinner which excelled that of the preceding day, the results of a shearing of some Solomon W. Jewett sheep at Tiffin, Ohio, were read, after which toasts were drunk to the *Bingham Festivals of the Sheep Shearing*, to the *Wool Growers of Addison County*, to the *Importers of French Merino Sheep in Addison County*, to the *Horses of Addison County*, to the *Farmers of Addison County*, to the *Host*, and to the *Ladies, God Bless Them, the Better Half of the Festival*. In response to the third toast, Jewett gave an account of his visits to France for the purpose of purchasing sheep, and of the various flocks that he saw there.

Finally the committee reported on the shearing. Thirty-two yearling ewes yielded an average of 17 pounds, the heaviest being 21 pounds and the lightest  $13\frac{3}{4}$ . The shorn body weights ranged from a high of  $112\frac{1}{2}$  to a low of  $78\frac{3}{4}$ , the average being 91 pounds. A slightly inverse relationship existed between fleeces, for the heaviest shorn yearling's weighed only  $15\frac{3}{4}$  pounds, while that of the lightest weighed 17. The heaviest fleece of all, 21 pounds, was clipped from a ewe weighing 105 pounds after shearing, while the lightest fleece,  $13\frac{3}{4}$  pounds, was taken from a ewe weighing 107 pounds after shearing.<sup>21</sup> The two-

year-old ewes after shearing averaged 123 pounds and their fleeces averaged  $15\frac{3}{4}$  pounds. All except three of the two-year-olds had lambs, but these three averaged one ounce over 20 pounds per fleece.

To climax the affair Bingham exhibited thirty French Merino rams from the flock of Victor Gilbert, an importation that had arrived four days before the shearing. He also presented a three-year-old ram of his own raising that weighed  $292\frac{1}{2}$  pounds, and his celebrated ram Napoleon, which had swept the show circuit in 1841, winning championships at the Maryland State Fair at Baltimore, the Pennsylvania State Fair at Harrisburg, and the Ohio State Fair at Columbus. In addition it received the prize silver cup at the American Institute in New York City.

Unquestionably events such as the shearing described did not influence sheep bloodlines as much as critics might now prefer, but the breeding and development of Merinos called for far more background, atmosphere, and promotion than students of the scientific aspects of heredity visualize. At any rate, shearing trials seem to have had more to do with sheep improvement between 1830 and 1880 than the combination of shows, pedigrees, and selection based on appearance.

#### MULTI-NIPPLED SHEEP

One of the most unusual experiments in sheep breeding came toward the close of the nineteenth century. In the summer of 1886, Alexander Graham Bell, inventor of the telephone, spent his vacation on Cape Bréton Island in Nova

<sup>21</sup> Due to the high proportion of "grease" in the fleeces, these figures were not too significant, although they represented four to five pounds of wool on a scoured basis. However, the drain on the animal's physiological reserves, from producing so much sebaceous secretion, was very taxing.

Scotia. The fact that his neighbors operated on one lamb per birth turned Bell's interest to increasing prolificacy. But greater prolificacy suggested added trouble, for ewes had only a single pair of teats. Bell felt that more nipples and greater milk production were essential to support increased lambs. Among different kinds of animals, Bell knew that those with the larger number of mammae had more offspring at a birth, and felt that this phenomenon presented a tangible point for selection.

In 1889, therefore, Dr. Bell announced that he would pay a premium for ewes that had more than two functional teats. Little is known of the genetic background of Nova Scotian sheep, but most of them possessed a tendency toward multiple nipples and the trait reappeared in their offspring quite regularly. At the end of the first year, Bell's breeding ewes averaged 2.5 nipples; by 1900, 4.28; and by 1910, 6.1. In Mrs. Bell's flock, carried on after the inventor's flock was divided, the average was 5.51 in 1923.<sup>22</sup> It is interesting that the added nipples did not stimulate additional mammary glands, but there was a definite forward extension of the mammary tissue from the glands already existing. Milk capacity of these forward nipples seemed small.

While the flock was started with two rams carrying the normal mammary pattern, four-nippled rams were in use by 1895, and six-nippled rams by 1899. In 1910 the rams averaged 6.8 nipples, but after 1913 only six-nippled rams were used. Six-nippled sheep are very rare, only two having been reported in twenty-two years that were not connected with Dr. Bell's Beinn Breagh flock.<sup>23</sup> The foregoing figures illustrate the selection applied to the breeding stock—in the lambs the number of nipples increased from 2.27 in the crop of 1890 to 5.23 in the crop of 1923. However, some years showed higher averages—5.40 in 1913; 5.38 in 1914; and 5.39 in 1921.

At the start of his experiments, Dr. Bell reported that his normal-nippled ewes showed 24 per cent of twin births, while his multi-nippled ewes produced 42 per cent.<sup>24</sup> His selection system, based on this observation, bore fruit, for the percentage of ewes showing multiple births increased markedly during the period. At the time of Dr. Bell's death in 1922, the ewe flock showed multiple births in more than half of the parturitions.

When Mrs. Bell died a year later, a flock of thirteen ewes and one ram was turned over to the New Hampshire Experiment Station at Durham, under charge of Dr. E. G. Ritzman. For the five years, 1929–33, the total lamb weights per ewe, at eight weeks of age, were 63.7 pounds for 70 ewes bearing twins, and 36.4 pounds for 231 ewes having single births. The twin-producing ewes had 75 per cent more weight to their credit.

For several years previous to receiving the multi-nippled flock, Ritzman had been crossbreeding Rambouilletts and Southdowns, to produce a type that would give more satisfactory yields of mutton and wool combined. When the Beinn Breagh flock arrived at the Station, this type of crossbred sheep was mated to it, since Bell had paid little or no attention to mutton or fleece quality. The high twinning capacity was retained and improved, nearly 70 per cent of the ewes showing multiple births in 1938, and nearly 80 per cent a year later. To give a uniform breed appearance, a four-nippled Suffolk ram was crossed in. In 1940 the breed was turned over to the

<sup>22</sup> William E. Castle, "The Genetics of Multi-Nippled Sheep," *Journal of Heredity*, 15, No. 2 (February, 1924) :75–85.

<sup>23</sup> Alexander Graham Bell, "Sheep Breeding Experiments on Beinn Breagh," *Science*, N.S., 36, No. 925 (September 20, 1912) :378–84.

<sup>24</sup> Bell, "The Multi-Nippled Sheep of Beinn Breagh," *Science*, N.S., 19, No. 489 (June 14, 1904) :767–68.

Bureau of Animal Industry at Beltsville, Maryland, to be stabilized genetically, and in the fall of 1941 it was established at the Morgan Horse Farm at Middlebury, Vermont.

Statistical studies after four years of work at the new location indicate that part of the increased fertility was due to added age in the ewes, since the proportion of twins normally is greatest between four and ten years in Merino ewes, and up to four to seven years in mutton breeds. Only in four-nippled ewes was there a significant relationship between number of lambs and number of nipples.<sup>25</sup> Thus far, these sheep have assumed no commercial importance, but the method by which they were developed, and the type of records kept, make it an interesting example of breed synthesis.

#### GRADING UP AMERICAN FLOCKS

Throughout the nineteenth century, efforts toward sheep improvement in America consisted of importing such breeds, strains, and varieties as seemed best adapted to special conditions, and breeding them "pure" or introducing their "blood" to flocks already here. All of the mutton breeds were brought in during this interval, as well as the French and Saxon Merinos, the Rambouilletts, and the subvarieties of all other wool breeds. These sheep were placed in registered flocks, and their progeny in turn provided "farm flocks," or helped "grade up" general sheep quality. The business of purebreds was promoted—registry associations were formed; exhibitions at which liberal prize moneys were offered took place over constantly expanding show circuits; individual and cooperative auction sales became characteristic of the business, often overshadowing sales at private treaty or by merchant breeders and traders who at one time covered the West; and broad channels for sheep publicity were devel-

oped, including numerous breeders' journals.

From the standpoint of the science of sheep breeding, the establishment of registered breeds was a distinct advance over anything that had taken place previously. The "pure breed" usually originated in a locality where natural or artificial barriers had developed a strain of sheep well adjusted to the region. This situation was especially characteristic of the British mutton breeds. The fens and marshes produced strains which could cope with the damp, and which yielded open, coarse-fibered, quick-drying fleeces. These long-wools were large enough to make full use of the lush but fibrous herbage. Except for the Oxford, Hampshire, and Suffolk breeds, the downs and lower uplands brought forth the middle wools, of medium size—breeds well adapted to American conditions. Finally Britain's mountains furnished a small, muscular, hardy variety capable of travel and of utilizing scanty pastures profitably. Such local strains provided the basic blood for the different modern breeds. The foundation individuals or flocks, on which registration by the breed society was set up, were arbitrarily chosen for excellence, by the men establishing the breed.

The important comparison with the breeding methods of the eighteenth century was that sheep breeders had learned the value of restricting hereditary variability, which had been overstimulated through constant and promiscuous crossing in that earlier century. The act of closing flock books to registration, unless descent could be traced to particular sheep or flocks, automatically reduced the amount of variability. Selection for type and quality restricted it still further. Many breeders practiced inbreeding or

<sup>25</sup> R. W. Phillips, R. G. Schott, and D. A. Spencer, "The Multi-Nippled Trait in Sheep," *Journal of Heredity*, 37, No. 1 (January, 1946): 19-26.

line breeding to a greater degree than the average of the breed, and when their flocks or pedigree lines became popular, usually through success in show yard, their sheep appeared even more "prepotent" and their progeny more uniform.

Before the hereditary causes of prepotence and reduced variability were understood, however, these qualities in a flock were ascribed to "purity," and breeders discussed the phenomenon with intense interest. Guarding "purity" was the preaching of the advisors on heredity and the policing mission of the breed officials. The obvious moves were to make certain that pedigrees issued for individual animals actually belonged to them, to discard animals showing off-type characters or "impurities," and to make rules that would prevent the introduction or preservation of "impurities." Special phenomena in heredity that seemed related to apparent "impurity" were given imposing names—*atavism*, *telegony*, prenatal impressions, etc.

Some sheepmen went as far as dog breeders in believing that the later breeding qualities of a female were influenced by her first mating, and some fine-wooled associations<sup>26</sup> actually denied registration to lambs from ewes previously mated to rams of other breeds or to grade rams which could not qualify for registration. This supposedly banal phenomenon was known as *telegony*, but no controlled experiment was ever able to support this conception. Thoroughly adequate explanations, based on other hereditary phenomena, exist for all reported cases which were checked by scientists.

Another problem arose from conceptions of different degrees of "pure breeding." This was related to the "concentration of blood" under the registry system and the opportunity for "contamination." Some sheep registry associations paid no attention to individuals, but based the right to registry

on the recording of the flock as a whole. To register a lamb it was not necessary to identify the individual sire and dam, but merely to certify that it came from a registered flock. The lamb, however, was given an individual number. This procedure produced a smaller number of identifiable ancestors and slowed the rate at which "purity" and "prepotence" were attained, since the field of variability was narrowed less rapidly under such "mass selection" than when the pedigrees were based on individuals. Furthermore, pedigrees established by flock registration could not be used as aids to selection, under the procedure which most breeders followed.

The chief criticism, however, lay in the laxity of control. It was far easier to substitute grade animals of superior individual merit<sup>27</sup> under the flock registry system, than when the individuals were recorded separately. Some of the arguments connected with establishing the flock book for Rambouillets lay in the fact that many French Merino flocks which were admitted to record around the turn of the century, qualified under the flock registry system without individual pedigrees.

The large-scale opportunity to "grade up" flocks lay in the West—in the mountain states and along the Coast. Most

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<sup>26</sup> For example, Rule 12 for registration with the Michigan Merino Sheep Breeders' Association, published in 1897, in Vol. III, reads: "The produce of a registered ewe which shall at any time have been bred to a ram not a registered American Merino, or one eligible to register, shall be excluded from registry."

<sup>27</sup> The concept of the difference between the germplasm which carries the hereditary potencies of an animal, and the somatoplasm, or body, which is only a sample of part of the characteristics carried by the reproductive cells from which it developed (and which do not measure the full range of the inheritance transmitted by that germplasm) is not yet understood by most breeders. The germplasm of the good grade sheep was more likely, on the average, to carry undesirable characters than that of the less desirable purebred from the type or somatic standpoint.

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of this area had been populated by sheep descended from the *churro*—the great majority of them still unimproved. Hence this region offered a market for purebred rams that was without precedent in the sheep business. Because the rams adapted to running with the flock on the range normally carried lower flesh and had to be hardier than those sold for pen or “hand” breeding, and because few breeders were accustomed to buying sires in field shape, fraud entered some transactions. In most cases the prices at which the rams changed hands appeared too high. But this point could be disputed, since nearly all of the rams sold were markedly superior to the “native”

rams which they replaced. In certain instances, however, false pedigrees and registry papers were provided, and in some cases grade sheep were masqueraded as purebred. Considering the vast task that was accomplished, the amount of fraud was comparatively small, and considering the general ignorance regarding range requirements, progress was remarkably rapid.

The first sheep widely distributed were of the Merino varieties. Merino breeders were better organized at the middle of the last century, were better financed, and their sheep were better adapted through breeding, selection, and systems of management to meet the necessities

<i>Swan Brothers, Stock Growers.</i>	<i>F. E. Warren</i>	<i>Cheyenne, Wyo.</i>	<i>Oct 12 1883</i>
		<i>S. F. Morgan</i>	
<i>To 5 head Cotswold Rams bought of John A. George of Stretton Court Herefordshire England @ £ 8.0. £ 200.00 " Freight and Charges from England to Lamargo Iles 13<sup>56</sup>/<sub>64</sub>¢/head 67.00 Freight &amp; Chgs from Lamargo Iles to Cheyenne Wyo</i>			
			<i>29.00</i>
			<i>£ 297.00</i>
		<i>S. F. Morgan</i>	

FIG. 183—Bill for Cotswold rams imported by George F. Morgan of Swan Brothers' Ranch, for Senator Francis E. Warren in 1883. Used in grading up the Warren Livestock Company's flocks.

of the western range. Being lighter in weight and able to live on scantier vegetation, they did much better on the mountain and desert ranges than the heartier-feeding mutton breeds. Their flocking instinct was more highly developed and their breeding season responded to variations in feed conditions more obviously than the British breeds.

Yet all this was not discovered without a thorough test by the trial-and-error method. In the Northwest the demand ran nip-and-tuck for some time between the long-wool breeds, especially Cotswold and Lincoln, and the Merinos. Many sheepmen having experience with mutton breeds settled in Oregon, Washington, and Montana. They were accustomed to the British breeds and felt that the long-wool crosses on native ewes would bring them larger returns. One reason that Oregon ewes and wethers were in such demand throughout the latter part of the trailing period was that the long-wool blood had produced a heavier-boned, heavier-shearing, sturdier type of sheep than those that had been improved by fine-wool blood alone. Hence it took a final casting of accounts by ranch bookkeepers before the lighter-covered bellies, the greater feed requirements, and the lesser flocking instinct forced the long-wool breeds from the picture.

Dealers in all classes of purebred rams began peddling them over the West as fast as transportation facilities developed. Some of them left unsavory trails behind, but it was not long until the responsible men behind each breed were making the situation hot for such "sharp-shooters," and were bringing in top quality sheep for the range wool grower.

Promoters of the Vermont Merino were in Mississippi, Texas, California, and Oregon in the fifties.<sup>28</sup> The California State Fair of 1856, little over a half-decade following the state's admis-

sion to the Union, had exhibits of French Merinos, Southdowns, and Leicesters, while several Spanish Merino and Cotswold flocks were already well established. Reference has previously been made to such distributors of fine-wooled sheep as John M. Stephens in Mississippi and Texas, George Wilkins Kendall in Texas, Jewett and Patterson in California, and Jones and Rockwell in Oregon.

Two methods of covering this field were used. One type of mercantile breeder established supplementary breeding farms in Ohio or Michigan, and used them as forward distributing bases for their surplus. For example, Solomon W. Jewett of Vermont distributed rams to Kansas, Colorado, New Mexico, and other trans-Missouri points from the Mutton Ridge Farm of H. K. Abbott, at Hillsdale, Michigan. The second type included merchants or dealers only, who bought in the East, assumed the transportation cost and shipping or death risks, and sold in the West. The latter class were not usually as meticulous in their transactions as actual breeders, since they had to maintain no reputation for their bloodlines, but the contributions of both classes led to rapid improvement.

#### WESTERN BREEDERS

Breeders who did the most to improve western sheep stocks established large flocks of high quality in the areas they were cultivating. Outstanding pioneers in this class were a Vermonter and an upstate New Yorker who went into California just ahead of the Civil War.

Solomon W. Jewett of Weybridge, near Middlebury, Vermont, located at Kern City (near Bakersfield), California. His flock was based on French importations. In 1851 he purchased of Victor Gilbert<sup>29</sup>

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<sup>28</sup> See pp. 77, 105, 186-89, 206-7, 379-82, 558.

<sup>29</sup> See Biographical Appendix, Jean Baptiste Gilbert.

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FIG. 134—Old City Hall, Syracuse, New York, where the National Wool Growers' Association was organized December 12, 1865.

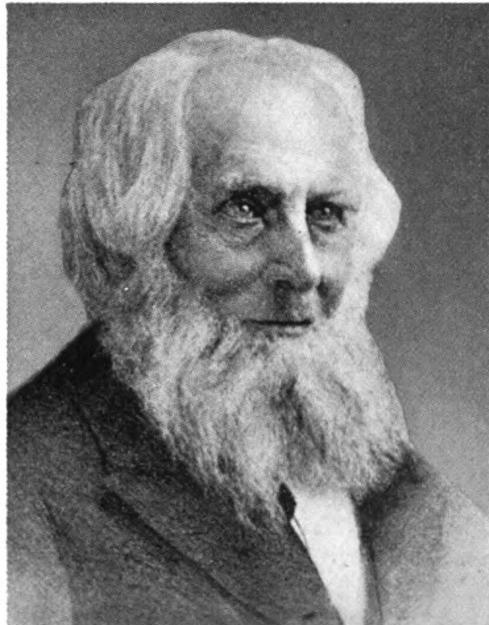


FIG. 135a—George William Bond, dean of the Boston wool trade (pp. 572, 607).

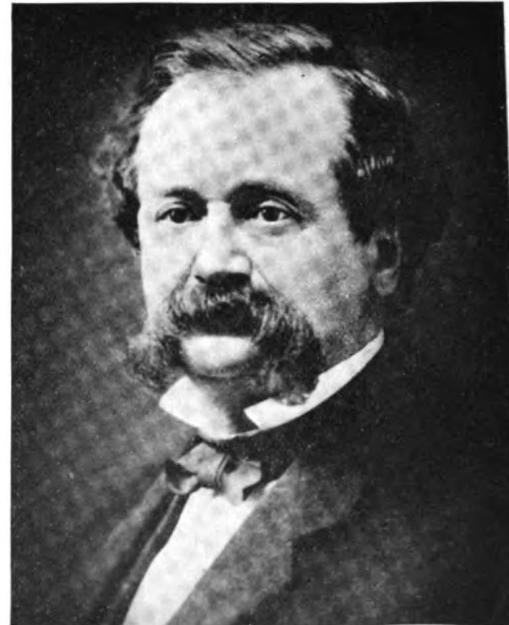
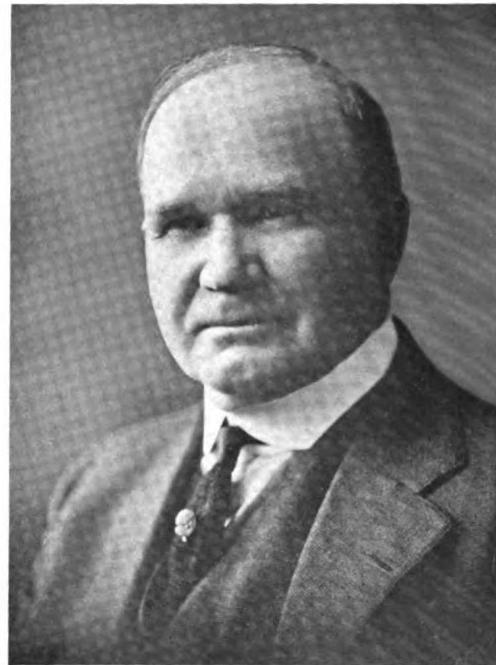


FIG. 135b—Dr. Henry S. Randall, early American authority on sheep, and first president of the National Wool Growers' Association (pp. 99, 571).



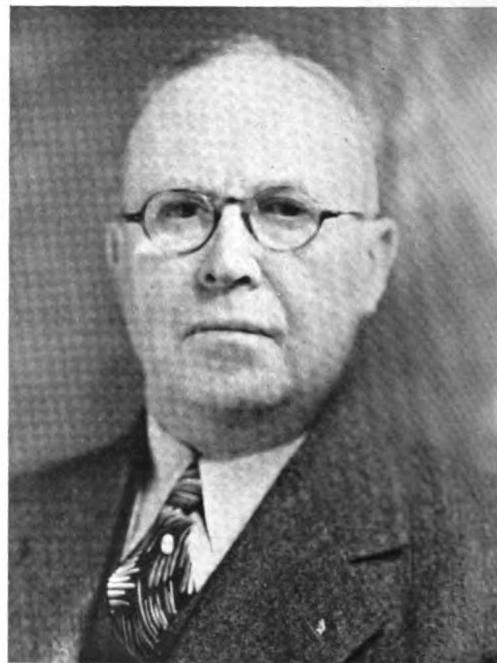
PANEL 136—Former Presidents of the National Wool Growers' Association:

(*Above*) Senator Frank R. Gooding of Idaho, 1911-13 (p. 291).

(*Above Left*) Frank Hagenbarth of Idaho, 1913-34 (p. 294).

(*Below Left*) Senator Francis E. Warren of Wyoming, 1901-08 (p. 576). (From portrait by Donald Gordon Squier.)

(*Below*) Fred Ellenwood of California, 1934-36 (p. 202).



eighteen rams and eighty-two ewes.<sup>30</sup> These, with subsequent additions, provided the flock on which his western operations were founded. In 1859, he sent the first of three shipments from Vermont to California via the Vanderbilt line of steamers, docking at San Francisco. The final consignment arrived in 1862, the cost of transportation for the three totaling \$8,500. Three supplementary, and larger, flocks were driven across country. In addition to the French Merinos, he also brought high quality Vermont Merinos of the "Atwood"<sup>31</sup> breeding. Jewett's flock was extremely influential, as it was carried on by his sons, Solomon and Philo D. Jewett, and by a son of Solomon, Philo L. Jewett. Nearly all commercial flocks in Southern California and many in Nevada and Utah were built up, either directly or indirectly, through the Jewett efforts.

J. D. Patterson of Westfield, New York, conducted an even more elaborate enterprise. His flock was founded in 1845 on descendants of Consul William Jarvis' importations of 1809-10, purchased directly from Jarvis in Wethersfield, Vermont. In 1846 he obtained some "Atwood" stock, and six years later he bought all of the yearling ewes and ewe lambs from the famous American Merino flock of William and Edwin Hammond, Middlebury, Vermont. From 1848 to 1857 he made annual importations from the French flocks of Gilbert and Cugnot, respectively, and in 1855 he won a 450-franc prize on a ram at a World Exhibition in Paris. After 1857 he bred his French Merinos pure, without the introduction of other stock. His chief flocks were kept near Westfield, New York, although in his later years he lived in Geneva.

His first advance into Western territory was in 1851 when he placed a flock of three to four hundred ewes on the farm of his cousin's husband, I. H.

Butterfield, Sr., near Utica, Michigan. This flock was drawn on quite largely to establish the foundation French Merino bands of that state. In 1859, Patterson shipped thirty rams and twenty-two ewes to California, transshipping them across the Isthmus of Panama. They met a warm welcome on arrival, three rams selling at \$1,500 each, and none bringing less than \$300. Fourteen of the ewes made a total of \$4,500.

In January, 1869, Patterson purchased 320 acres in Brooklyn (now part of Oakland), California, and established flocks there under the charge of his brother, James M. Patterson. He also bought a sheep ranch of nearly three thousand acres near Livermore. In 1861, a large band of his sheep and cattle were driven overland from Michigan,<sup>32</sup> and for many years he made large sales to west coast breeders, and to China, Australia, New Zealand, and Japan.

While Patterson continued breeding into the eighties, his best known line came from a flock sold in 1863 to Robert Blacow of Centerville, California. Blacow distributed rams very widely throughout the seventies, and between 1879 and 1882 sold most of his flock to J. Roberts of Irvington, California. The latter in turn sold out to J. H. Glide of Davis, California, in 1888.

Considerable rivalry existed between the users of Patterson and Jewett blood lines, though most of the competitive criticism seems to have come from the former. Jewett's flocks had the advantage over Patterson's as determined by eastern show and shearing records, although both had practically the same sources of

<sup>30</sup> Plumb, *Types and Breeds of Farm Animals*, 522.

<sup>31</sup> The Atwood strain was descended from a single ewe purchased in 1813 for \$120.50 from Colonel David Humphreys.

<sup>32</sup> Butterfield, "Michigan to California in 1861," *Michigan History Magazine*, 11, No. 3 (July, 1927) :392-423.

blood. As a result, the discussion was based on the relative skill of the two men as breeders, and that kind of question could be settled only by the lapse of time.

Apparently the identity of the Patterson sheep in other hands can be traced a little more definitely than the Jewett sheep, though both have excellent records. Part of the discontinuity came in the stirred-up feelings when so many western French Merino flocks, in which flock rather than individual records had been kept, were admitted *en masse* to Rambouillet registration. Many eastern men, accustomed to "hand" breeding, frowned on the practice of western breeders in running two or more Rambouillet rams with a group of ewes, though today the system is widely accepted.

Several other California flocks were based on Patterson blood, especially on the ewe side. In the southern part of the state, Roberts equipped both Jean Alec and Germain Grimaud with exceptional stock. These two men were especially prominent before 1900. Roberts also sold to Germain Pellisier a ram which in turn sired a group of rams that were sheared publicly in Los Angeles in 1884. Their fleeces ranged from thirty-nine to forty-two pounds in weight and attracted national attention. Hundreds of Jewett rams were used by the extensive Miller and Lux flocks, and Germain Grimaud sold a large number of rams in Utah.

Probably the best of the Patterson-descended flocks was developed by J. H. Glide, though the latter broadened the bloodlines greatly. Glide emigrated from England to California and entered the sheep business in 1860. By 1882 he had the most competent shepherd in California, an Englishman named Charles Priddy, and in 1888 he purchased the Roberts flock. Throughout the early

nineties he had developed the premier show flock on the Coast, and his shepherd's brother, Alfred Priddy, said of Glide:

I . . . have never seen any (sheep) like them since. It seems that when he passed out, that breed of stock went with him.<sup>33</sup>

Glide imported many sheep directly from the government flock at Rambouillet in France, and at the Paris World's Fair of 1900 obtained several fine rams at an average cost of \$200 per head. Glide did not join with other breeders at that date in establishing the Rambouillet Flock Book, but his sheep were widely distributed.

#### UTAH IMPROVEMENT

The chief flocks in Utah improvement were tied up with the Jewett and Patterson importations. Several hundred Grimaud ewes were added to the community flock at Mount Pleasant, Utah, in the Sanpete Mountains. This flock was managed by John H. Seeley, later president of the American Rambouillet Sheep Breeders' Association, and part of the Grimaud ewes went into Seeley's private Mountain Dell flock as well. Rams to mate to them were obtained from J. H. Glide and their progeny were used directly on flocks of the Sanpete area.

In 1899 Seeley purchased the entire Andrew Bates show flock of some three hundred head from Irwin, Ohio. These were of the von Homeyer and von Nathusius extraction, though descended from Markham breeding. The next year he imported large numbers of sheep from France and Germany, buying directly from French Merino flocks at Rambouillet, Wenderville, and Cherville, and from a few German breeders.

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<sup>33</sup> Alfred Priddy, Oakland, California. Letter to Gordon H. True, University of California, October 4, 1927.

In 1901, Seeley purchased the remainder of the old Victor Gilbert flock near Versailles, and acquired the foundation which ultimately made him the leading Rambouillet breeder in the United States.

At the National Ram Sale in Salt Lake City 1916, he paid \$1,000 for a Rambouillet ram, and in 1917 sold a yearling ram for \$1,325. At the 1918 ram sale he sold "the famous 62" (J. H. Seeley 7800) for \$6,200, the highest price ever paid in the United States for a single sheep. He also sold three ewes for \$1,375. Seeley topped the fourth and fifth national ram sales on stud ewes and the sixth on a pen of five registered rams.

Two associates of Seeley's contributed greatly to his success, Dwight Lincoln and W. C. Clos. The former for years was secretary of the Rambouillet Breeders' Association and was a leading importer of sheep in Ohio. Clos paid more attention to the records, pedigrees and blending of blood lines.

Two Sanpete neighbors of Seeley's, near Mount Pleasant, contributed greatly to the improvement of Utah sheep, John K. Madsen and Senator W. D. Candland. W. S. Hansen, of Collinston, was a significant and constructive breeder as well. Blood lines in these flocks were interrelated. The Hansen flock was credited with a more "honest" staple in its showyard individuals than most competing flocks.

#### TWO GREAT CALIFORNIA FLOCKS

Among other important California developments was breeding carried on by another notable, Francis Bullard, of Woodland. Bullard's work was especially interesting as his flock was developed on his own pattern from the beginning. In 1865 he purchased a dozen Spanish Merino ewes from a west coast breeder, Milton Dale, and established them on his farm in Woodland. Soon he added to

them thirty-five Vermont ewes and a ram purchased from Kirkpatrick. His flock developed in popularity, and in 1885 he exported fifty "Bullard" rams and ewes to Australia.

This drew too heavily on his breeding stock, so he bought two rams and a number of ewes from the Stowbridge Farm flock of New York, which happened to be on exhibition in Berkeley at the time. Both rams became famous under the names of Vermont and Longwool, and the latter's son "Longwool, Jr., 666" was Pacific Coast champion for four years.

Bullard established a system of individual records in breeding in 1875, which had much to do with the degree of improvement that made them so prominent on the range. Too, he nearly doubled the live weight of Merinos on the Coast, and produced a fine staple,  $2\frac{1}{2}$  to 3 inches long, that was gumless and showed a free-flowing oil. In the early nineties Bullard brought in two drafts of Shattuck blood.<sup>34</sup>

Francis Bullard died in 1894, leaving the business in the hands of his sons, Edwin A. and Frank Bullard. They decided to shift to French Merino blood, and in 1900 imported twenty-five Rambouillets direct from Germany. Additions were made from the best flocks of this breed in Michigan and Ohio. In 1918, they paid A. G. Butterfield \$3,000 for the ram "Old Tedd" at the Salt Lake City National Ram Sale, and a year later they received \$1,450 for a yearling at the same sale. In 1921, they again spent \$3,000 for the celebrated ram "Monarch," also bred by Butterfield.

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<sup>34</sup>The Shattuck blood line originally came from Vermont but in the eighties L. E. Shattuck, Jr., established a flock at Stanberry, Gentry County, Missouri. This became one of the leading flocks of the day, winning forty-one prizes in the American and Delaine Merino classes at the Chicago World's Fair of 1893.

This was in the midst of the tremendous postwar depression in the sheep industry, and at a time when they already owned an unusually strong line of rams.

Monarch was the best example of a strain bred by Butterfield to bring back flocks that had become too coarse through badly planned or unsystematic crossing, but was finer in fleece and bone than the range type toward which breeders now direct their selections. He yielded forty-three pounds of wool in the grease at the 1920 ram sale. One year later to the day he sheared a little over forty-three pounds, following a season in which he had been mated to 250 ewes. Two of Monarch's sons in the hands of Butterfield sold at \$1,000 each. E. A. Bullard died in early 1923, but his brother Frank carried on at the larger stock shows and in the ram sales for many years thereafter.

One interesting California flock was developed in which selection was directed toward a single commercial goal, the production of a quality grade of commercial wool without strict approach toward any existing breed standard. It has had limited effect on western breeding, but its development represents the clear-headed approach of a single western breeder to the quality-fleece problem. Its culmination occurred at the Golden Gate International Exposition, in the California Coliseum on Treasure Island in 1939. There Frank C. Clarke of Laytonville, California, was awarded the world's championship for market wool on his first prize fleece in the 64's combing class, against 483 fleece entries from England, Scotland, Australia, New Zealand, British South Africa, Argentina, Uruguay, Canada, and the United States. This fleece weighed twelve pounds and was an 11½ months' growth clipped from a five-year-old high grade "Clarke Rambouillet" ewe.

"Clarke Rambouillets" have been dis-

tinctive for their fleeces since 1900, and the foundation sire was a ram of Bullard breeding. This strain was developed under a rigid program, originally laid down by his father and uncle, Joseph H. and William Clarke. Their chief objective was the development of a fine-wooled sheep that would endure wet winters and dry summers, and yet produce a fleece of uniform and exceptional staple under range conditions.

Their success was attested not only by the foregoing award, but by the fact that in 1936, 1938, and 1939 the Clarke clip, including tags, black fleeces, and ram fleeces, topped United States prices for grade fine wools at 41.15 cents, 31.57 cents, and 32.56 cents per pound, respectively.<sup>35</sup> Other outstanding awards included the grand champion fleeces at the International Livestock Exhibition in Chicago in 1932, the Texas Centennial at Dallas in 1936, and the Ogden Wool Show in Utah in 1940. At the California Wool Show, they won the award for best fleece from a manufacturer's viewpoint every year from 1927 through 1931, and the grand championship was awarded to Clarke entries from 1929 through 1931. After that date the flock<sup>36</sup> was no longer eligible for this competition.

#### DEVELOPING A RANGE SHEEP

By 1880, western wool growers were beginning to distinguish clearly between breeders who made successes in the show yard through breeding fine stud rams, and those who bred sheep that fitted significantly into western range flocks. Many flockmasters with excellent show

<sup>35</sup> *Pacific Rural Press*, 138, No. 6 (September 23, 1939) :194-97.

<sup>36</sup> Joseph H. Clarke's original idea was to adapt a fine-wooled breed of sheep to Mendocino County, where several acres per head were required for animal pasturage. Earlier sheepmen had found that the Merino varieties could survive the wet seasons better than the mutton breeds could survive the dry seasons. He purchased a thousand Merino ewes in 1883 from Frank Mecham, about fifty miles north of San Francisco. They possessed smooth bodies, long,

records had little or no influence on modern flocks in the West, although they contributed greatly farther east. Several others, whose names do not appear in the reports of the great sheep exhibitions, developed rams—and especially carloads of field rams—that were in extreme demand in the state and national ram sales. Breeders skilled in the art of developing maximum quality, growth, and finish in stud rams and ewes often failed signally in supplying field flocks. Very few of them attained sufficient numbers in their own flocks that they could supply two to five hundred rams of uniform age, type, and quality, which would meet the seasonal needs of operators running twenty-five thousand to one hundred thousand head.

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white staple, and were hornless. When the numbers in the flock had doubled, he started culling. Lambs were culled at three to four months, those that were badly built, too small, too wooly-faced, or too wrinkly, being discarded. Only the largest ewe lambs were saved, which automatically reduced the tendency toward twin-bearing, in favor of body size and fleece weights. Ewes were culled just prior to shearing in mid-May, though observations on all ewes were made and recorded throughout the year. Increased attention was constantly devoted to a bright, crimped staple, dense and soft. The upper half of the flock was used to obtain replacements for breeding ewes, while the lower half was bred to mutton rams for meat animals. All of these, and the culled from the breeding flock, were sold for slaughter.

Clarke emphasized the adjustability of the ewes to their environment, their ability to shear out in good flesh, and their capacity to produce each year a good lamb and a good fleece. To increase size, about 1900, he purchased polled Rambouillet rams and a few registered ewes from W. S. Hansen, Collinston, Utah, and added to the band from which they bred their range rams. By 1912, the Clarks came to believe that horned Rambouilletts had many superior qualities they needed, so began buying one to three registered stud rams every two to three years to mate to the bands from which their breeding ewes and field rams came. In order to avoid gumminess in fleeces, rams with heavy yolk were never used. Ewes were divided into small groups and mated to particular rams which seemed best adapted to their type. Clark believed tender and weak fibers were due to lack of feed, and insisted that a flock could not start growing good fleeces unless in prime condition at the beginning of the wool-growing season. He insisted a ewe needed a "running start" on its fleece, and had two maxims—"The half of good breeding is good feeding," and "As grows the grass, so grows the wool."

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The blood lines which principally affected modern flocks on the range date back to 1893, when the von Homeyer Rambouilletts were exhibited at the Chicago World's Fair. In the hands of W. G. Markham, of Avon, New York, they attained wide distribution, while during the first decade and a half of this century three Michigan breeders did much to improve and promote the type of sheep which the West demanded—E. M. Moore of Orchard Lake, Thomas Wyckoff of Davisburg, and A. A. Wood and Sons of Saline.

From 1900 forward, Rambouilletts continued to exert the chief influence in the West and Northwest. In Oregon, the Cunningham Sheep Company of Pilot Rock, and before the first World War the Baldwin Sheep Company of Hay Creek, were particularly influential. In Washington, Robert A. Jackson of Dayton exercised both a state and regional leadership which ultimately led his Tucannon flock to national and international distribution, and himself to the presidency of the American Rambouillet Sheep Breeders' Association for several years. Jackson made two exportations of Rambouilletts to South Africa, and was a leading western breeder of Cotswolds for range flocks for a number of years. An influential Delaine breeder also operated in this region, J. E. Smith of Pendleton, Oregon.

From the mid-eighties to the mid-twenties, the Butterfield Sheep Company of Weiser, Idaho, exercised a most significant leadership in stud and field rams, as well as in show flocks. In fact, many have believed A. G. Butterfield to be the clearest-headed breeder the West enjoyed—the best appraiser of types desirable for western flocks and the most successful breeder of rams to meet those types. Butterfield was always reputed to have rams on hand that would return any flock to normalcy, and the kind of sheep that the market demanded.

Montana's early flocks were based on Merino selections from Paris Gibson of Great Falls, and Poindexter and Orr of Dillon. When the Rambouilletts came into ascendancy, the flock of Williams and Pauly, more than any other in the entire United States, developed enough purebred bands to provide long strings of rams for large purchasers, and distributed its bucks from Canada to Texas and Mexico. Senator Charles H. Williams did the most to promote public acquaintance with the flock while it was developing, but for over fifty years his partner, Peter Pauly, was in charge of the breeding program. In Wyoming the King Brothers of Laramie made great show winnings and influenced Rambouillet stud flocks materially. In addition to imported sheep, the Kings drew heavily on the Moore and Wyckoff flocks in Michigan. P. J. Quealy, of Cokeville, was famous as the first modern western breeder to pay one thousand dollars for a ram. In New Mexico, J. H. Van Houghton, of Shoemaker, placed thousands of range rams throughout the Southwest.

In this latter region, rivalry between Rambouilletts and Delaines was great, and Delaines had wider distribution than in any other section of the country. Texas also developed several Rambouillet breeders who improved the quality of state commercial flocks, such as Graham and McCorquedale, Whitehead and Wardlaw, and J. B. Moore and Sons of Del Rio; T. L. Drisdale of Juno; and J. S. Brown of Abilene. In Delaines, J. L. Gulley of Uvalde, and Leslie Reed of Del Rio, exercised considerable leadership.

#### WESTERN CROSSBREEDING

From the beginning, western wool growers were hampered by the fact that the hardy varieties of sheep which were descended from the Spanish stocks did

not produce a wool of either the quality or weight that would make it profitable to handle them, while the good wool-producing and mutton-producing breeds were not hardy enough to withstand the rigors of the western environment. The "grading up" system fell short of requirements when growers tried to obtain maximum returns from their flocks. As the number of generations sired by a particular breed of ram increased, the bands took on the characteristics that interfered with maximum success when the same breed was used pure, under the western environment. Hence the West had to develop its own kind of sheep.

One lesson was learned early—the blood in the ewe bands had to rest on the Merino foundation, in order that hardiness, fleece quality, flocking instinct, and general ease of handling might be maintained. But crosses of mutton sheep (in early days the long-wool breeds) resulted in heavier clips and larger lambs at marketing. Before adequate price distinctions were made for wool grades, large numbers of growers in the territories made regular swings in their rams from Cotswolds or Lincolns to Rambouilletts and back again. The kind of sheep produced by cross breeding was the kind the western range required. Often the balancing point as to size of animal and weight of fleece was in excess of what the range forage would carry. Growers suffered from inability to market their lambs and younger ewes in as good flesh, or to shear their fleeces in as healthy and resilient a condition as the breeding would have permitted.

In 1885 Powers<sup>87</sup> recommended one cross of Cotswolds or Downs, but objected to carrying it farther since it made the fleece "streaky." He urged that "a reserve of pure stock (be kept) con-

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<sup>87</sup> Powers, *The American Merino*, 55.

stantly on hand from which to make the cross afresh each year." While the Leicester was dropped from consideration early because of the bare legs and lightly-wooled bellies in its grade progeny, Lincolns and Cotswolds were continued up to the first World War. Many wool growers felt these two breeds were too big and that their lightly-crimped wool fibers were disadvantageous, but from 1875 forward they filled the market demand for a white-faced sheep.

Between 1910 and 1915, Romneys from England and Corriedales<sup>38</sup> from Australia were introduced to provide a fixed type from a breeding standpoint that possessed the qualities of first crosses. Both breeds found havens in California, and Corriedales traveled into Wyoming and Colorado. The limit of range use, especially for the latter breed, is far from realized yet, and it is currently spreading in New Mexico and Texas. However, these new white-faced breeds, either pure or as crossbreds, fail to produce as heavy lambs as the black-faced breeds.

Up to 1915, prejudice against black-faced or brockle-faced lambs was rather strong, especially among feeder buyers and wool buyers. But the development of shed lambing in Idaho and Washington made it possible for growers to turn off milk-fat lambs from the mountain ranges. Black-faced lambs, or crosses from black-faced rams, proved best adapted to this purpose.

Beginning in the late eighties, some growers had begun to use Shropshire rams. Robert Taylor of Abbott, Nebraska, and Casper, Wyoming; A. J. Knollin and H. G. Finch of Soda Springs, Idaho; and A. G. Butterfield of Weiser, Idaho, distributed large numbers. The *Carbon County Journal* in 1886 published the following item:

Mr. (Robert) Taylor has a number of those crossbred Shropshire and Merino rams recently

imported from Solano County, California, and bred by J. B. Hurt, for sale at his ranch. . . . The most successful wool growers in this region will breed from no other kind of sheep.<sup>39</sup>

Taylor kept this band of crossbred rams at his Sulphur Spring ranch, south of Rawlins. However, crosses of bigger sheep seemed to give better results, and by 1905 Hampshires were beginning to replace the Shropshires. In fact, Taylor and Knollin were both handling some Hampshires by 1899. By 1915, this movement was strongly under way. With World War I, the flocks of Mrs. Minnie Miller, Thousand Springs, Idaho; Malcolm Moncreiffe, Big Horn, Wyoming; Dr. H. C. Gardiner, Anaconda, Montana; Frank Brown and Sons, Portland, Oregon; and C. M. Hubbard and Son, Corvallis, Oregon, were well known. One of the first large commercial sheep companies to use Hampshire rams predominantly was the Wood Livestock Company of Spencer, Idaho, which commenced breeding from them before 1910, under the management of Frank Hagenbarth.

Suffolks began to come into strong demand about 1920. Several breeders influenced western commercial flocks, but Laidlaw and Brockie of Muldoon, Idaho, have been most prominent, their crossbred Suffolk rams being in demand even before 1915.

The crossing system, as used to balance wool and mutton throughout the West, was never permanently satisfactory. The breeder was always having to take counter measures to offset departures from the type he desired, when they led too far

<sup>38</sup> F. R. Marshall, "The first Corriedale importation arrived at San Francisco, December 31, 1914. There were seven or eight rams from three flocks, and about forty ewes from five flocks, all from New Zealand (the South Island)." Letter to author, April 20, 1945.

<sup>39</sup> The *Carbon County Journal* was published at Rawlins, Carbon County, but in "Old" Carbon, Wyoming, on October 16, 1886.

in the direction of mutton quality to make the wool products satisfactory, or too far in the direction of wool quality to permit top feeder or fat lambs. Even when the average fell approximately where the breeder wanted it, there was too much variation among the ewes and still more variation in their progeny. Hence, even before the first World War, some steps were being taken to solve this problem.

A. G. Butterfield of Weiser, Idaho, made a serious business of producing crossbred rams—mostly Merino-Lincoln, Rambouillet-Lincoln, or Rambouillet-Cotswold—and large numbers of other breeders followed his example. It was not difficult to obtain in this manner crossbred rams of a type that just suited the average western sheep man as far as appearance was concerned. But their progeny was so heterogeneous that wool growers either had to buy young ewes for replacements or go back to Rambouillet or Merino rams to repair the damage done to the ewe bands.

Numbers of western growers made a specialty of crossbred rams for particular localities or conditions. Every National Ram Sale, and practically every state ram sale, had its quota of crossbreds from the time that the cooperative consignment sales were started. However, the best breeders realized the futility of working from crossbreds in long-time breeding programs, and cast about for a better solution through the creation of new breeds. The experience with sheep in other countries, and with other species of livestock in the United States, made it obvious that the inconveniences of crossbreeding could best be avoided by developing breeds that would give the flockmaster reasonable assurance of getting what he wanted.

#### NEW BREEDS IN THE CROSBRED TYPE

The first attempt at a new crossbred produced the Columbia. On September

1, 1906, the United States Department of Agriculture (Division of Animal Husbandry) signed a contract with the Wyoming Experiment Station at Laramie to conduct range sheep investigations. In June, 1907, fifty-five Rambouillet and four Delaine ewes were sent there to be mated to selected rams, and a start was made in producing a breed suitable for western range demand. Lack of range at the station led to a contract with the F. S. King Brothers for grazing, and from 1910 to 1917 the work was conducted on their ranch.

In the latter year the United States Sheep Experimental Station was set up at Dubois, Idaho. Selections were made from the crossbreds produced from Rambouillet ewes by Lincoln, Cotswold, Leicester, and Romney rams. These selections would give larger, heavier-fleeced ewes than the average, and these in turn would produce more pounds of marketable lamb. After two years the Lincoln-Rambouillet blood seemed more promising, and F. R. Marshall, then in charge of sheep husbandry in the Bureau of Animal Industry, decided to inbreed from that stage of the investigation. First-cross rams were mated to first-cross ewes, a desirable type was chosen from their offspring, and the new breed thus developed was christened the Columbia. Marshall writes of the formative period:

It was 1916 or 1917 that the Columbia was named although we had considered it as the "makings" of a breed earlier. Much of its merit, and a large degree of uniformity from the start, was due to the original sire. I do not remember much about his fleece but in conformation he was a regular Shire (draft horse, with) a remarkable back and chest. He was Canadian-bred. We recognized the merit of his first crop of lambs. I think there were not over twenty ewe lambs in the lot, and I am sure that he died after siring the second crop. So the numbers in the first years were small. Until 1920 all of the rams used were sons or grandsons of this sheep. It was at least line breeding and intensification of remarkable vigor and constitution. Probably this fact is responsible for the growthiness and size of the breed as compared to Corriedales and other types of crossbreds. . . . The Columbia

also went right ahead of the Corriedale in . . . weight of fleece. Of course it, nor any of the other (crossbred) types, could compare with the Corriedale in color and quality of wool. The Corriedale was founded on a much better feed country than is ever found in the range area, and there was not so much need for additional natural frame and substance.<sup>40</sup>

The environmental conditions under which the breed developed were strictly practical. A sagebrush and grass type of range at an altitude of five to six thousand feet was used for spring and fall grazing, on which the annual precipitation totaled about ten inches. Summer grazing was in the Targhee National Forest at 6,000 to 8,500 feet altitude, and winter grazing up to mid-January was in the Salmon National Forest at 5,000 to 6,500 feet. For the rest of the winter the flock was kept in feed lots.

Shed lambing was practiced about the first of April, and the bands usually went out on the spring range the last of that month. Shearing and dipping took place near headquarters in early June while en route to summer range. Such practices were thoroughly in line with those of sheep breeders in the same vicinity.

The Station's description of the breed is as follows:

The Columbia is a large, vigorous and moderately low-set, polled sheep, free from wool blindness and body wrinkles. The body has good length, which balances well with the width and depth. It is especially well fleshed in the loin and has a square rump and a good leg of mutton. A roomy middle and wide loin are characteristic of the breed. Well developed forequarters indicate a strong constitution. The breed is large-boned and rugged. The legs are straight and well placed. The head is moderately large and is held erect. Modern rams range in body weight from 190 to 250 pounds while mature ewes range from 135 to 155 pounds under range conditions in the fall. On the average, mature ewes of this breed produce about twelve pounds of three-eighths quality wool in the grease each year, which shrinks a little over 50 per cent. The average length of the wool each year is approximately 3½ inches. The fleece tends to stay well together in storms. Mature rams shear eighteen pounds or better every twelve months under range conditions. The fleece length for twelve months' growth is 3¾ inches. Columbia lambs grow rapidly and ma-

ture uniformly early under good range conditions, averaging approximately eighty pounds at 130 days without grain.<sup>41</sup>

A Columbia Sheep Breeders' Association was formed in January, 1941, with headquarters at Bozeman, Montana, and comprised eleven breeders and the Montana State College, as charter members. Most of the private flocks were located in Montana, with two from Wyoming.

The Panama breed, as compared to the Columbia, originated in a reciprocal cross of the foundation breeds, Rambouillet rams being mated to Lincoln ewes. In 1912, James Laidlaw, of Muldoon, Idaho, had a band of about fifteen hundred Lincoln ewes—large sheep with a lot of substance and heavy fleeces, but of a type that was rapidly dropping out of favor with western sheepmen. To these ewes were crossed Rambouillet rams of the big wrinkly type, purchased from James Port of Oakley, Idaho. The progeny were inbred—the rams being closely selected for type, the ewes being practically unculled, as it seemed essential to expand the flocks to a point where effective selection processes could be imposed. It took several years to obtain one band of breeding ewes of the type desired. In 1915, five of the best individuals were entered in the Panama-Pacific Exposition at San Francisco, and met with so much favor that Laidlaw decided to name the new breed Panamas, in honor of the exhibition.

Originally the goal in fleece quality was a three-eighths' blood, but animals with such fleeces seemed to lose size, so numbers of quarter-bloods<sup>42</sup> were kept in addition. The fleece weight he sought was an average of eleven pounds per ewe, with twelve pounds in the best feed-

<sup>40</sup> Marshall, Letter, April 20, 1945.

<sup>41</sup> From a typewritten description distributed in 1941 at the United States Sheep Experimental Station, Dubois, Idaho.

<sup>42</sup> The terms quarter-bloods and three-eighths bloods refer to grade of fleece, not degree of relationship to purebreds.

years. Ewes that would weigh 135 to 140 pounds on average grazing, at two years of age, represented Laidlaw's ideal, while on the best range he wanted them ten pounds heavier.

Laidlaw and Brockie ran four bands of ewes (about six thousand head) in 1940, none of which were over seven years old. Two thousand to twenty-two hundred ewes were added to the flock each year to permit further expansion. "Jimmie" Laidlaw never established a flock book on his sheep, although he kept accurate records on his methods of mass breeding. He preferred the flock registry system, however, if a society should ever be established.<sup>43</sup> According to his opinion, as rapid progress was made under the methods he has used as could have been attained by individual registry, because the numbers he could handle were so much greater. All rams and ewes were required to meet his standards of selection in order to qualify as breeding animals, and he was able by 1940 to sell a thousand to twelve hundred qualified rams yearly. In 1938 several hundred rams were sent to Texas, and since then have been distributed all over the West.

One of the results of the experimental crossing through which western sheepmen went was to discover the value of so-called "comeback" sheep. Typically, "comeback" sheep were obtained by mating a coarse-wooled ram to fine-wooled ewes (the usual range ewe, high in Rambouillet blood), and then mating the progeny of this cross back to Rambouillet rams. The result of this breeding procedure was a three-quarter fine-wooled, or "comeback," ewe, larger than the original range ewe and usually more profitable. Such a sheep type was difficult to maintain on most ranches, for it involved too complicated a system of crossbreeding.

To develop a breed that would meet this requirement, the United States

Sheep Experimental Station, at Dubois, Idaho, in the fall of 1926 mated selected Rambouillet rams on selected crossbred Lincoln-Rambouillet and Corriedale-Lincoln-Rambouillet ewes. By following rigid culling from this start, the Targhee breed was developed, able to satisfy the conditions for which the three-quarter fine-wool, or "comeback," ewe was employed. The type of range was the same as that used in developing the Columbia. In 1941, the Station issued the following description:

The Targhee is intermediate in size. Mature rams weigh an average of about 200 pounds and mature ewes weigh about 130 pounds in good range condition. The Targhee is compact in body type and has a broad, smooth, and level back. The rump and leg of mutton are well developed. The breed is moderately low set and has good bone and straight legs. While the ideal sought is freedom from folds in the skin and an open face, free from wool blindness, there are some of these (folds) still in evidence in a few of the individuals in the flock. Mature Targhee ewes shear an average of a little over eleven pounds of wool in the grease, with an average length of about three inches. Targhee wool grades on the upper side of half-blood, or 62's, in fineness, with a shrinkage of about 55 per cent. The lambs average about eighty pounds at 140 days of age when produced on the range without grain. The lambs carry considerable thickness and mature quite successfully on good feed. The ewes are good mothers and handle uniformly well on the range.<sup>44</sup>

The Panama-Pacific Exhibition of 1915 also led to the development of another range breed. A. T. Spencer of Gerber, California, bought eleven choice imported Romney Marsh rams that had been sent to the livestock exhibit at the Exposition. Crossed on Rambouillet ewes, with careful selection of offspring for a quarter of a century, these rams founded a new breed of sheep, the Romedale, that began to attract attention at National Ram Sales as early as 1937. Spencer followed traditional methods to

<sup>43</sup> James Laidlaw, Interview with author, May 29, 1940.

<sup>44</sup> From a typewritten description distributed in 1941 at the United States Sheep Experimental Station, Dubois, Idaho.

establish the breed, and set up a registry society for the purpose of recording the output of other breeders as well as of his own flock. Foundation flocks were sold to Texas, Oregon, New Mexico, and elsewhere in the United States; in addition a small flock of exceptional merit was exported to Guatemala. The Romeldale has shown unusual ability to resist both heat and humidity, and its future seems well assured as far as its capacity to meet exacting flock requirements is concerned.

#### CROSSBRED TYPES AND MARKET TRENDS

With a ewe of the crossbred or intermediate type, western flockmasters can always swing in the direction of meat or wool by choosing the necessary breed of rams. Whether this position is favorable to the sheepman depends on his individual judgment. If he can anticipate the course of ovine events, all is well; if he winds up by lagging behind the general course of the sheep or wool cycle, his results are certain to handicap him. Hence too fluid a condition in flock type has often worked as much to the grower's disadvantage as failure to guess market trends. Use of the modern "compromise" breeds—Corriedales, Columbias, Panamas, Romeldales, and Targhees—permits western breeders to express their choice of types quite effectively without committing themselves to unchecked variability in their flocks, such as the old crossbreeding systems stimulated.

Before 1900 the chief source of income from western flocks was the wool production, although the development of wether fattening in the later eighties and throughout the nineties started a shift toward mutton. The mid-nineties saw a diminution in wool income when "free wool" was established, while the shift to the ewe-and-lamb basis of production early in the present century lent still further emphasis to meat production. The long-time factor in determining the

trend of western sheep production will probably be the competition from foreign wools in international trade, and it is obvious that many decades must elapse before World War II wool surpluses are adjusted and costs of foreign wool production parallel or equal those of the United States.

Consumption of lamb meat is spreading, however, and the American market can use at least a third more sheep on farms and ranges than there were at the close of the War. It seems probable that the proportion of wool income to total income from a flock may decline from 50 to 60 per cent—as it was a half century ago—to only 25 to 35 per cent.

Such a change will lead to further selection in the West, so that flocks tend more and more to mutton type, or to crossing in more black-faced rams. This suggests the continuance of shed lambing, when differentials in price can return to normal, and still wider distribution of flocks over forest ranges and public grazing lands, to permit more profitable use and better integrated production procedures.

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While the United States is still lacking a national sheep breeding policy, attempts have been made through recognized genetic principles to develop new breeds. Best results so far have been attained with types that approach the mixed wool and mutton requirements of the western range, but with flocks that breed approximately true for the "compromise" or "crossbred" type. Crossbreeding systems utilizing ewes of one pure breed and rams of another are too expensive, and the maintenance of a balance of desired characters by crosses is too technical and exhaustive a system for 99 per cent of sheepmen to follow. The development of breeds which will normally transmit the qualities valuable in the crossbred types furnishes the most economical solution of the problem.

*So first the harmless sheep doth yield his fleece,  
And next his throat, unto the butcher's knife.*

—Shakespeare, *King Henry VI*, Part III, Act V,  
Scene 6, lines 8–9

♦ 25 ♦

## Sheepmen's Associations and the Large Industries

THE FIRST commercial customers of American sheep producers, the domestic wool manufacturers, were under a competitive handicap when the sheep industry recovered following the American Revolution. During Colonial Days the English wool trade had full control of our market, with a superior quality of woolen fabrics. Consequently it held a decisive technological and financial advantage over American manufacturers who were just emerging from the home industry stage. After peace was signed our manufacturers tried to offset their handicap by recouping at the nearest point possible, the wool grower. First, sharp differentials in price were enforced against the badly prepared domestic fleeces; later, tariffs were enacted which protected the mills but exposed the sheep raiser to low-cost competition from other wool-producing countries.

Not until 1865 did the American manufacturer mature enough to discuss the problem with sheepmen themselves, and six decades of association thereafter, as well as the punishment of the postwar depression of 1920–21, passed before wool growers could feel that cooperation promised by the manufacturers would materialize when the tariff pot began to boil. Even after the close of World War II, common ground for solving post-war problems is still difficult to find. Commencing with this uncertainty regarding the wool trade, the growers' doubts extended to the railroads, the

livestock markets, the meat packers, and in some sections to the supply men for the industry—purveyors of salt, medicines, dips, vermifuges, shears, wool-bags, twine, and all other necessities of sheep-fold and herder's camp.

Until the present century, most wool producers would not cooperate with associated arms of the industry. Small operators who sold their entire crop on the price level of a single day during one production year naturally felt at a disadvantage in dealing with a buyer who could average the deals of a bad day with those of a good one. The small producer felt he *deserved* the days when prices were good, but was *resentful* when markets improved just after his wool, wethers, or lambs were sold. Hence most sheepmen avoided political questions that really required the whole weight of the industry. Many times in a century and a half the producers were deceived by associates in the political arena, but just as frequently their associates felt that the growers let them down, due to conservatism, timidity, or prejudice.

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The chief factor in unifying political action of sheepmen previous to the Civil War was the tariff. Free trade, varying levels of tariff rates, and discrepancies between protection for the manufacturer and the grower produced such contradictory effects on the industry that wool growers believed themselves engaged in

the most hazardous of occupations. When protection was sufficient to permit the woolen mills to meet British and German exporters successfully, the prices of raw wools were so low that the grower could not compete against Australia, South America, and South Africa. If a safe margin were preserved, and the tariffs on both manufactured and raw wools raised, the free-trade politicians gained the ascendancy. The whole rate structure was soon destroyed and wool would wind up on the free list, with the grower's protection dissipated.

Each of the five times wool was placed on the free list, it was preceded by comparatively small imports of woolens, and each year that the tariff was increased importantly, it was preceded by rather high imports. Before the tariff was removed in 1893 and 1912, the value of imports fell below twenty million dollars annually, while ahead of the tariff acts of 1866, 1897, and 1921, the value exceeded fifty million dollars. Hence growers believed that their chance for honest cooperation from manufacturers came when the latter were really hurt by foreign competition. Only since the Fordney-McCumber Tariff of 1922, and the Smoot-Hawley Tariff of 1930, have sheepmen felt that they were receiving protection in any degree comparable with that accorded manufacturers.

#### ORGANIZING THE NATIONAL WOOL GROWERS

The exigencies of the Civil War led to the first national organization of wool growers. This conflict created an enormous demand for blankets and "army cloth," and stimulated a tremendous increase in sheep and wool production. Before the end of 1863 the market for wool was diminishing, and by the close of the next year sheep production was in the doldrums. During 1865, the wool manufacturer profited on low-cost domes-

tic staples. But increasing competition from abroad bothered, and the importation of more than fifty-eight million dollars' worth of woolen goods in 1866 rocked his foundations.

In November, 1865, the National Association of Wool Manufacturers invited the state wool growers' associations to send representatives to Syracuse, New York, for a meeting on December 13. A consultation was to be held in respect to their mutual interests, especially as to the policies respecting the wool-producing and wool-manufacturing division, to be discussed before the United States Tariff and Revenue Commission.<sup>1</sup>

Wool growers attended from Vermont, Massachusetts, New York, Pennsylvania, Ohio, Michigan, Indiana, Illinois, Wisconsin, and Iowa. On the day before the meeting with the manufacturers, the National Wool Growers' Association was formed at a special meeting in the Syracuse City Hall. The first president was the distinguished writer on sheep husbandry, Dr. Henry S. Randall, currently president of the New York Association of Wool Growers. The remaining officers elected at that time give an idea of the relative strength and representation of the several wool growers' associations:

#### *Vice Presidents*

George B. Loring, President, New England Association

J. W. Colburn, President, Vermont Association

R. M. Montgomery, President, Ohio Association

T. J. LeMoyne, President, Pennsylvania Association

<sup>1</sup> The United States Tariff and Revenue Commission was established by an amendatory act signed by President Lincoln on March 3, 1865, which authorized the Secretary of the Treasury to appoint three men to a commission to revise the revenue system of the United States.

A. M. Garland, President, Illinois Association  
 Eli Stillson, President, Wisconsin Association  
 J. B. Grinnell, President, Iowa Association

*Secretary*

William F. Greer of Ohio

*Treasurer*

Henry Clark of Vermont

*Additional Members Executive Committee*

Edwin B. Hammond of Vermont  
 E. B. Pottle of New York  
 Columbus Delano of Ohio  
 Daniel Tinman of Pennsylvania  
 John McDonnell of Illinois  
 H. Hemmingway of Wisconsin

The next day, the joint meeting was called to order in the same City Hall by E. S. Bigelow, President of the National Association of Wool Manufacturers. Doctor Randall, on motion of Bigelow, was elected chairman of the joint meeting. Randall's statement with reference to the tariff presented the traditional position:

The producer must have a remunerative home market. It is in vain to suppose that American farmers generally, on their comparatively small farms, and with their comparatively small capital, with the high duties of free men and electors to discharge, with government to support, with public trusts to fill, with school houses and churches to maintain, with children to educate for the future statesmen of our country, with those comfortable and respectable homes and easy modes of life to keep up, which should be made attainable to all industrious citizens of a free republic—it is in vain, I say, to suppose that such men can compete with the vastly cheaper labor and aggregated capital of various other countries in the production of any article, the price of which is so large in proportion to the cost of transportation, as wool. On the other hand, the American manufacturer, without the home production of the raw material, would find it in the end more expensive, and at all times more difficult, if not actually impracticable, to obtain his full supply. And the same principle

of free trade which overthrew the producer would, as a matter of course, extend to him; for it is not, and can never be, the policy of the American Government so to legislate as to protect the manufacture of foreign staples to the exclusion of our own.<sup>2</sup>

While Doctor Randall was the oracle at this historic conference, the Socratic functions were performed by George William Bond, "dean in perpetuity" of the Boston Wool Trade.<sup>3</sup> Several times Bond addressed the convention, wording an aphorism at the height of the discussion that has justified the behavior of the wool trade ever since—"Wool growers and wool manufacturers must find themselves ever amenable to the laws of trade."<sup>4</sup> The quick and apparently arbitrary response of manufacturers to supply and demand sensitivities, and especially to sudden changes in clothing styles, has always been difficult for growers to appreciate.

When the schedule was prepared that formed the basis of the Tariff Act of 1867, Bond filled the principal role. The trade is indebted to him for the technical use of the word "blood" in describing wool grades. He pointed out the similarities of the qualities which he set up, with the descriptive terms for mating (half-blood, three-eighths-blood, and quarter-blood, for example), and stated that they were purely coincidental, but he felt that the "only practicable classification was by *race* and *blood*, the lines of quality so subtly run into each other."<sup>5</sup> Bond's greatest service was the assembling of standard samples, representative of the classification, which were placed in custody of the Treasury Department. In 1872 he had just completed a more exact

<sup>2</sup> *Reports of a Commission Appointed for a Revision of the Revenue System of the United States, 1865-66.*

<sup>3</sup> See Biographical Appendix, George William Bond.

<sup>4</sup> *Bulletin of the National Association of Wool Manufacturers, 22, No. 3 (September, 1892) :284.*

<sup>5</sup> *Ibid.*

set of standards, procured by a trip to Europe and consultation with world authorities on fiber, when they were destroyed by fire in Boston. For twenty-five years, 1867-92, he was responsible for American wool standards and their maintenance by the government.

Cooperation between manufacturers and growers was never wholly satisfactory, although the Tariff of 1867 helped sheepmen tremendously. In 1879, the treasurer of the National Wool Growers, A. F. Wilcox of Fayetteville, New York, while discussing the absence of funds in the treasury, blamed "the apparent security following the Tariff Act of 1867 (which) induced an apathy that terminated the career of most of the minor associations of wool growers, and seriously impaired the efficiency of many of the larger ones still in existence."<sup>6</sup>

Such peaceful days for the grower could not continue, of course. Even before Wilcox wrote, trouble was brewing. On January 9, 1878, the Chairman of the Ways and Means Committee of the House of Representatives, Fernando Wood, introduced a bill to revise the tariff, which the manufacturers did not wish to oppose. The Wool Growers obtained a ninety-day delay in order to prepare a statement on the proposed legislation. When that proved ineffective, a motion by Congressman Conger of Michigan to strike the enacting clause was passed, thereby nullifying it. The National Association of Wool Manufacturers saw their mistake at the last moment, for E. S. Bigelow, their former president, told Secretary W. G. Markham of the National Wool Growers in the summer of 1878, "Except for your firmness at the Rochester meeting and in Washington, we (the manufacturers) should have committed a very great error, and I want you to know that we realize that it was your firmness that saved us."<sup>7</sup>

About 1880 Texas began to take an active part in the National Wool Growers, its wool interest being tremendous in comparison with most sheep-raising states. Delegates attended each annual national convention, and in 1881 F. W. Shaeffer contributed \$150 to the work of the National Association. The member of the executive committee from Texas that year was A. Simms (also spelled Symnes and Symns in the Association Records). For ten years the latter was a member of this committee, while D. E. Bentley and a man named Gion (also spelled Guyon) were active at the annual meeting of September 6, 1883. By 1885, William Vernon, E. S. Foster, and J. M. Frostdel were coming to the meetings, and in 1887 A. E. Shepard of Marathon was a delegate.

Early in the Forty-seventh Congress (1881-83) the wool growers' associations participated in a bill to establish a tariff commission. When the latter was set up in 1882, the president of the National Wool Growers, A. M. Garland of Illinois, was named a member. Hence in 1883, when studies for a new tariff were being completed, he withdrew as president to devote full time to the Commission. Activities of the growers seemed principally concerned with preserving the benefits of the 1867 Tariff Bill. The Executive Board of the growers, meeting in the Osburn House in Rochester, New York, August 29, 1882, resolved that any material change from the benefits of the 1867 Tariff would be detrimental to the country.

The manufacturers, however, were closer to the consuming trade and felt the first hints of dissatisfaction. On August 30, 1882, representatives of the manufacturers met with the growers. They recommended that the two interests

<sup>6</sup> *National Wool Grower*, 30, No. 1 (January, 1940): 36.

<sup>7</sup> *Ibid.*

unite on a schedule of modified duties for wool and woolens that would "meet the reasonable expectation of the people and thus secure permanency to the woollen industry." The manufacturers insisted that only the tariff on raw wool be considered, that the principle of a compensatory tariff be undisturbed, and that tariffs on manufactured products not be discussed until the duties on wool had been settled.

Naturally the growers believed in considering all points in relation to each other, so a committee of ten (five from each association) was appointed which reported in October. The wool growers could not agree that the tariff on raw wool should be reduced, so each interest prepared to present its views independently. As a result, small reductions were made in the schedules for clothing and combing wools, and on certain manufactured products.

This divergence of opinion and dissociation of effort led to the debacle of 1893-94, when the Wilson-Gorman Free Wool Act was passed. Wool had not been on the free list since 1861, and the domestic wool-growing industry was prostrated. However, the disaster led to the cooperation of more western states in the activities of the National Wool Growers. By 1895, Thomas B. Catron of Santa Fe, New Mexico, W. F. Wilder of Colorado, and M. F. Greeley of South Dakota had brought their respective states into action, and by 1897 W. G. Conrad of Montana and Jesse M. Smith of Utah were participating.

While the Dingley Tariff was being developed and enacted, numerous attempts were made to resume cooperation with the Wool Manufacturers, but they proved fruitless. The latter did not want to lose any advantages they had gained from low-cost raw materials during the free-wool era, and the National Wool Growers' Association could not enforce

the improved marketing methods and grading which the manufacturers suggested as the price of their support.

#### PREPARING MARKET FLEECES

This preparation of domestic clips for the market has always stirred disagreement between the grower and the manufacturer. Each recognized that certain services must be performed between the time that the fleece was ready to be shorn and when it could be spun as yarn. But there was always difficulty in agreeing as to which interest should perform each service, or what price differentials should cover the costs of service. Obviously any damage through faulty shearing had to be charged against the grower, but the penalty for ragged, uneven work, for double cutting, or for dirt and stains, produced argument.

In the earlier days of the industry, sheep were washed before shearing. But it was still necessary to remove burrs or other vegetable matter that adhere to the wool fibers, as well as the "grease," "suint," and other secretory materials that constituted 40 per cent of the "grease" weight. When spinning and weaving were carried on in the farm home, such removal was performed there, but they were handled more economically and uniformly under mass operations in the trade. Wool growers overestimated the value that could be saved, while the section of the trade scouring wool insisted on too liberal margins to protect the cost of operation.

Wool scourers had a distinct advantage over local growers, for the amount of shrinkage<sup>8</sup> was either estimated in buying

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<sup>8</sup>The weight lost in scouring the fleece, transforming the latter from a "grease" to a "clean" basis, is known as the "shrink." It varies from as little as 20 to 30 per cent of the grease weights in dry, relatively clean, coarse, open fleeces to as much as 70 to 80 per cent in "greasy," dirty, relatively dense, fine fleeces.

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PANEL 137—Officials of the National Wool Growers' Association:

(*Above*) Roscoe C. Rich of Idaho, president, 1936-40 (p. 294).

(*Above Right*) Norman Winder of Colorado, president, 1943-47 (p. 337).

(*Below Right*) C. B. Wardlaw of Texas, president, 1940-43 (p. 393).

(*Below*) Thomas Drumheller of Washington, vice-president, 1937-43, honorary vice-president, 1943-45, and honorary president 1945— (p. 216).





PANEL 138—(Above) W. P. ("Chet") Wing, secretary of the California Wool Growers' Association (p. 595). (Roof Studio.)

(Above Left) Fred R. Marshall, former secretary of the National Wool Growers' Association, 1920-43 (p. 585).

(Below Left) J. Byron Wilson, legislative representative of the National Wool Growers' Association, and secretary of the Wyoming Wool Growers (p. 589).

(Below) Dr. S. W. McClure, former secretary of the National Wool Growers' Association, 1910-20 (pp. 294, 595).



or determined by testing a sample (and there was always room for argument as to the representativeness of the sample). Yet a wool buyer had to take tremendous toll to leave so much margin between washed and unwashed wool that a grower could gain by washing his sheep before shearing. Only 20 per cent of the raw weight was removed in washing. It was still necessary to scour, and farm labor cost more than the saving in shrink.

In the farming states, following the Civil War, efforts were put forth to have the tags and extremely dirty fleeces bagged separately, but they were seldom successful. Most local wool buyers were more interested in profiting from improved practices of the best wool growers than in paying prices to reward improvement. Hence, the man who "got by" with the most refuse in his wool bags, or who made his fleeces absorb the most moisture, was likely to gross the greatest income. After three-quarters of a century of effort, significant improvement has occurred only in limited areas. The best results have come through the marketing programs of the wool pools, cooperative wool warehouses, or other wool-marketing associations.

The "ace-in-the-hole" for the manufacturer all through this period was foreign wool. In Australia, New Zealand, England, and Germany, wool normally moved through auction sales, and in the first three countries restrictions were placed on all wool used as collateral for loans. Rigid skirting, sorting, and grading regulations were enforced before any wool could pass through public auctions. As Australia came to dominate the international wool market, these practices permitted wool buyers to discriminate against clips which failed to meet such exacting specifications—the characteristic situation in North and South America, Russia, and Asia. Hence growers faced the choice of furnishing the services

provided by countries "down under," or of accepting prices enough lower to compensate American manufacturers for putting domestic fleeces on a comparable basis.

This meant that American growers either had to have tariff protection, or render a service like that of the Australians and New Zealanders. The few attempts to prepare wool in the same way failed, because buyers would not recognize or reward individual efforts in this field. Also, cooperative movements were usually based on emotion rather than experience, so they had difficulty in meeting trade competition. Strong friction therefore developed between grower and manufacturer.

The industry floundered through this quagmire while the rest of American business boomed under McKinley and the War with Spain. Judge William Lawrence, president of the National Wool Growers from 1895 to 1901, was from McKinley's home state of Ohio. But the protection the grower received under the Dingley Tariff of 1897 failed to match the advantages of the manufacturer, and foreign wool could be bought cheaper than domestic. Eastern leadership of the sheepmen was waning, and the stage was being set for western control.

#### THE NATIONAL LIVESTOCK ASSOCIATION

During this unsatisfactory period, principal representation for the grower was exercised by the National Livestock Association, founded in 1898 and composed principally of Midwest stockmen, though financed by contributions from the stockyards and meat packers. This was probably the quickest way in which the livestock associations could have recovered after the slump of the Cleveland administration, but range sheepmen and cattlemen soon wearied of control by Midwest feeders, purebred associa-

tions, and the buyers of their livestock. In early 1901, the western sheepmen revivified the National Wool Growers' Association, and in 1905 the western cattlemen formed the American Stock-growers' Association. One year later this group and the remnants of the old National Livestock Association reorganized as the American National Livestock Association, and western cattlemen were elected to control. This led to a more natural channel of interest, and soon the sheepmen were strengthening the National Wool Growers.

#### REVIVING THE NATIONAL WOOL GROWERS

On January 19, 1901, between six and seven hundred wool growers gathered in the Assembly Hall at Salt Lake City, Utah, to reorganize the national association. It was contemplated that the new organization could include every wool grower in the United States, either through direct membership, or membership in an affiliated regional, state, or local association. A new constitution and bylaws were adopted at the morning session, but before evening they were found to be inadequate and a committee was authorized to present another set at the next annual meeting.

The old association had become a mere subscription list for the *National Shepherd's Bulletin*, published by the first vice president, F. P. Bennett of Boston. From the annual dues, ninety cents went to the *Bulletin* and ten cents to the Association. Apparently no one felt dishonesty was involved, for the paper was readopted as the official publication of the Association, and the Executive Committee directed to find means of supporting it. The new roster of officers showed how far westward the control had migrated:

#### *President*

Senator Francis E. Warren of Wyoming

#### *Vice President*

F. P. Bennett of Massachusetts

#### *Secretary-treasurer*

A. J. Knollin of Idaho and Missouri

#### *Executive Committee*

Dwight Lincoln of Ohio  
 John T. Rich of Michigan  
 Harold Carlisle of Missouri  
 J. E. Massey of Colorado  
 E. P. Snow of Wyoming  
 T. C. Powers of Montana  
 H. W. Kelly of New Mexico  
 E. S. Gosney of Arizona  
 H. A. Kearnes of Utah  
 A. J. Knollin of Idaho  
 Thomas Nelson of Nevada  
 Harry P. Quinn of California  
 D. P. Ketcham of Oregon  
 S. J. Cameron of Washington

The new organization found many problems immediately. Several issues that had been fought again and again were dismissed and more urgent ones, such as public lands, replaced them.

#### RAILROADS

The first new problem arose from the increase in mutton interest. Wool and the tariff no longer occupied the organization's major attention. The continuing development of the great wether and lamb feeding regions of Nebraska, Kansas, and Colorado stirred dissatisfaction with transportation conditions. At the annual convention in Kansas City in 1903, President Warren stated:

From our country (in the early eighties) we were compelled to ship in single deck cars, and we were charged the same rate as for cattle. . . . I asked the railroad company the privilege of buying lumber and putting it into cars to make

double decks, fastening it with screws so that the cars would not be defaced, and then taking out the lumber and putting up the screw holes in good shape, offering to pay the same freight rates as on cattle, and also ten dollars per day for any delay in thus preparing the cars. The general freight agent . . . laughed at me when I made this proposition. He said, "What's the use of butting your head against a stone wall? Nobody eats mutton, and we shall not extend any privileges to sheepmen. . . . You are a good fellow. . . . I will tell you what we will do with you. We will let you have a single deck car at the same price, but we won't make you pay the freight in advance. We *will* make every one else (do so) . . . because the sheep they ship won't pay the freight." I said to him in reply. . . . "I will live to see the day when you will come to them, hat in hand, and ask them to ship over your road, and you will furnish them with double-deck cars, longer and larger and better than any cars now in use in this country."<sup>9</sup>

The correctness of Senator Warren's forecast is obvious today, but it required a quarter of a century for railroad officials, and the rank and file of employes with whom the lamb shippers had to deal, to develop a cooperative attitude. For a long time a western sheepman "was looked upon as one who might be permitted to live if he promised to go out of sheep and go into the cattle business."<sup>10</sup> Not until the great runs of milk-fat lambs, direct from their dams, began to move from California, Washington, Idaho, and Colorado in the early twenties did the railroads appreciate this new tonnage and make the necessary provisions for handling. Their general livestock agents in this field finally proved outstanding.

Before the current century, railroad matters received little attention from the National Wool Growers' Association. The depression in the wool industry during the nineties was attributed to free trade, and the necessity of protection in international commerce made disputes with railroads, packers, or livestock markets of minor importance. Nevertheless, when the National Livestock Association was organized in 1898, many individual

wool growers joined, and this group undertook work on transportation problems which the National Wool Growers' Association had ignored.

The chief subjects of dispute were cost of shipping to market; quality and amount of service; rough handling that caused bruises and weight shrinkage; loss of "bloom;" settlement of claims; right of attendants marketing sheep to have free return transportation; and discriminatory rates that limited freedom of marketing. During the Denver meeting of the Wool Growers in 1901, the effect of freight rates on sheep and lamb marketing was discussed by A. J. Knollin. At that date he had the widest experience in shipping sheep and lambs in the entire country. He criticized the high level of freight rates in relation to quality of service, as well as the shrinkage and shipping losses resulting from inadequate supervision in transit. Most important of all, he felt that the rate structure between markets restricted the shipper's choice of markets.

In 1906, Dr. J. M. Wilson of Wyoming was elected vice president of the National Wool Growers, and immediately became involved in transportation discussions. Under his impulse, the Wool Growers lent active support to the Hepburn Act strengthening the Interstate Commerce Commission. In 1907 he arranged a joint meeting of sheepmen and railroad officials at Cheyenne, after which a notable improvement in train service and feeding facilities en route resulted.

Before 1875, a so-called "Cruelty to Animals Act" covering rail transportation of livestock had been enacted by Congress. This required that animals in transit must be unloaded, watered, fed, and rested each twenty-eight hours.

<sup>9</sup> *National Wool Grower*, 30, No. 1 (January, 1940):41.

<sup>10</sup> *Ibid.*

The humane purposes of the law were unassailable, but its administration actually stimulated bad railroad service. The carriers could collect additional charges at each feeding point, so in 1905 shippers launched a campaign to extend the period just before arriving at market to thirty-six hours or, as some stockmen demanded, to forty-eight hours.

The National Wool Growers were especially active in this movement, for the driving, rough handling, and other hazards incident to unloading and reloading were more severe trials to livestock than the additional hours en route. A committee went to Washington, headed by Doctor Wilson and A. J. Knollin, which pointed out that this obsolete law increased their marketing expense with no compensatory return. They informed Secretary Wilson of the Department of Agriculture and Dr. D. E. Salmon of the Bureau of Animal Industry that shippers were ground between the upper millstone of rigid government enforcement of the twenty-eight hours, and the nether millstone of a railway management that profited from slowing schedules and requiring the shipper to feed oftener. The Committee insisted that members of the Association would abide by the law if the government would require reasonable railroad schedules—eighteen to twenty miles an hour—while perishable livestock was on the train.

The chief opponents of the change were the humane societies. These maintained an arbitrary position on theoretical grounds, and would not defer to the experience of the shippers. The latter sustained severe losses from the excessive handling and rehandling especially when the expiration of twenty-eight hours meant unloading at night. Unfortunately the witnesses representing anti-cruelty societies were able to point to excessive cruelties in the shipments of swine when the law was violated. A compromise (June 29, 1906) resulted in the time

for the last lap to market being extended to thirty-six hours, on written authorization of the shipper.

The National Wool Growers' Association, and its member state associations, were constantly solicited for support in the struggle between the transcontinental railways and the steamship lines to transport the western wool clip to Boston and Philadelphia, but in general they remained neutral. They recognized that the railroads held the whiphand through ability to fix the short-haul from shearing point to ocean dock, and could always keep the short rail haul plus water rate higher than the through rate from range shipping point to Seaboard.

Struggles in this field naturally made the Association an active cooperator in strengthening the Interstate Commerce Commission in 1905, and in supporting all moves toward lower or better balanced rate structures. But while sheep associations in general supported reductions in freight rates, they usually took the view that quality of service was more important than low rates. When the American Stock Growers' Association withdrew from the National Livestock Association in 1905, and when the American National Livestock Association was established in 1906, freight rates and railroad service provided the chief political activity of the organization officials. The first objective in the new constitution appeared in Article II:

... to secure to shippers the establishment and maintenance of just, fair, reasonable, and equitable rates of freight and other charges, and prompt and efficient service; and ... to prosecute all such proceedings as shall be necessary to that end, after exhausting all reasonable means to secure voluntary adjustment by the railroads.<sup>11</sup>

The National Wool Growers participated in many hearings before the Interstate Commerce Commission, but

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<sup>11</sup> *Proceedings, First Annual Convention American National Livestock Association, Denver, Colorado, January 30–February 1, 1906*, 5.

in general seemed to feel there were broader purposes behind a national livestock organization than struggling against other segments of the industry with which they had to do business. Frank J. Hagenbarth, the sheepman who had previously been president of the National Livestock Association, felt it obligatory when elected vice-president of the newly organized American National Livestock Association, to urge reasonableness in railroad relations. He pointed out that at an average rate of \$125 per car, not more than \$25 of the charge would be excessive,<sup>12</sup> while losses through bad railroad service could readily total \$50 to \$100 from shrinks and bruises. He felt that too restrictive rates could lead to dangerous inefficiencies in service. The runs of highly perishable milk-fat lambs, directly off their mothers, a decade and a half later made service of greater significance to sheepmen than to any other class of livestock shipper. The cooperative approach led to a better understanding between railroads and shippers of lambs than developed with any other class of livestock men.

Despite this relationship, the Interstate Commerce Commission on April 14, 1912, authorized a reduction in freight rates on wool, in a case brought against the railroads by the National Wool Growers' Association. In March, 1914, the Association obtained a suspension of a sheep rate advance which the Interstate Commerce Commission had just granted. Again, in 1915, two dockets before the I.C.C., numbers 409 and 555, were decided in the grower's favor.

Serious differences of opinion, however, did not develop until 1917 percentage advances in railroad rates were authorized to meet the war contingencies. Flat changes in rate structure were unrelated to differences in price levels between animal and wool markets, or to differences in labor and other costs of processing at various market points.

Hence in mid-1917, when the railroads proposed a straight 15 per cent increase in rates, the opposition of the Wool Growers was stimulated, and a stream of protests arose when it went into effect. On top of the war disorganization of the railroads, the destruction of the old market differentials was devastating, and the Association participated in all I.C.C. postwar dockets designed to re-establish prewar relationships. In 1922 it was an active participant in the series of cases covering live animal and dressed meat rates east of Chicago and the Mississippi, and in 1923 it became involved in the general wool freight rate case.

All of this led to the Hoch-Smith Resolution supported by the sheep and cattle associations, and the opening of the Western Livestock Freight Rate Case, I.C.C. 17,000, Part 9—hearings and arguments on which dragged out over many years. The case opened June 30, 1927, and decisions on various parts of the case were being announced five and six years later. As a result of Association participation, the sale-in-transit privilege was retained in some western markets, and in June, 1931, the minimum loading weights on sheep were reduced. The same season, during the depth of the depression, the Association—with other agricultural and market interests—opposed the railroads' request for a 15 per cent increase in the general rate structure—which application the I.C.C. denied the following October.

Two years later in *ex parte* 115, the National Wool Growers opposed the request for a general increase of 10 per cent in the freight rates. The Association believed the increase would undo years of work on Docket 17,000. This had just re-established market relationships on a competitive basis, so that all growers had access to all markets for comparable

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<sup>12</sup> *Proceedings, First Annual Convention, American National Livestock Association, January 30–February 1, 1906*, 31.

competitive return on their livestock. Rather than establish new and fair relationships at higher levels, the I.C.C. exempted livestock from participation in the increase.

The most serious problems with railroads lay in the furnishing of sufficient cars and the provision of adequate service during rush marketing seasons. Movement of fed lambs out of the Platte, Cache-le-Poudre, and Arkansas river valleys in the months of February to May called for expert work on the part of the livestock agents, especially of the Union Pacific, Burlington, Santa Fe, Rock Island, and Missouri Pacific railroads. The movement of milk-fat lambs from Washington, Idaho, and the western slopes of Colorado required similar expertness from the Northern Pacific, Great Northern, Burlington, Union Pacific, Northwestern, Milwaukee, Rio Grande, and Moffatt Tunnel routes. Only minimum delays and minor shrinks could be tolerated, and the cooperation of railroad and association officials accomplished far better results than "lawing" ever could. Not all questions can be worked out cooperatively, for emergencies in growers' and railroads' incomes arrive simultaneously—growers need lower rates and railroads increased incomes, in order to survive. But the degree of basic understanding broadened materially between the first and second World Wars.

#### PUBLIC LIVESTOCK MARKETS

When the National Livestock Association merged into the American National in 1906, its former president, Frank Hagenbarth, made this significant statement:

Twenty years ago one trainload of lambs would have fully met the requirements of the Chicago market. . . . Now, twenty-five to thirty thousand head daily are not excessive.<sup>12</sup>

During the period to which he referred the public stockyards had developed a

great service, and points of disagreement between the stock grower and the yard operators were usually minor. In fact they were confined to three fields: cost of feed, yardage and selling fees, and inefficient service.

The cost of feed was always a moot point. Prices at the market were much higher than values on the farm. In general the feed that a lamb ate cost the shipper a cent and a half to two cents per head, and brought twelve to twenty cents in the form of weight sold to the slaughterer. The packer should have been the one to complain, though he adjusted his bids to the amount of "fill" which the lambs showed. But when lambs were carried over to a subsequent market the extra feedings forced the shipper to sustain a heavy expense.

Stockyard managements learned early that they had to give good service. All yards installed covered sheds in the sheep market to protect against rain, snow, and chill when wet. Wet fleeces also made packers buy water for the same price as sheep, so they always reduced their bids materially. Sheepmen believed that the losses buyers sustained from wet wool were absorbed as operating costs, and were taken into full consideration in lowered bids thereafter. Hence they "knew" they ultimately paid for this type of bad handling, and all other types as well. Every expense of this sort was true economic loss, and growers felt this could be reduced materially by proper facilities at the stockyards. Disputes with the operators of stockyards therefore involved details of service more frequently than the amount of yardage.

Commission charges were another matter, however. When selling commissions came up for official consideration, they were discussed as often as service. Before the livestock exchanges (at some mar-

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<sup>12</sup> *Proceedings, First Annual Convention, American National Livestock Association, 28-29.*

kets) and the Packer and Stockyard Administration set up rules to prevent the practice, many commission companies acted in the dual role of sales agent for a lamb shipper and buying agent for a lamb feeder or slaughterer, and would collect fees for each service on a single load of lambs. Naturally growers felt that some of the incentive for the commission men to fight for the "high dollar" was lost if the salesman handling their lambs was also being paid to buy those lambs as cheaply as possible for another man. Efforts were made to divorce the buying functions from firms which sold lambs, and vice versa. But this involved too great a disruption of businesses, so a compromise was affected. The livestock exchanges passed rules, and the Packer and Stockyard Administration issued regulations, which forbade commission firms that acted as buyers to fill their orders from lambs consigned to them for sale.

One of the principal points on which sheepmen criticized commission men was the tendency, which developed from competition among themselves, of "talking too big." Usually this was exhibited by pretending to know more detailed developments of the market than it was possible for anyone to know, or by a pretense to "inside information" which did not exist. When the sellers could not "deliver" on their promises, they blamed market manipulation by the packers, bad service by the railroads, government regulations, weather, or any other alibi, rather than admit that their promise of better service than their competitor had no foundation.

#### MEAT PACKERS

Ever since Joseph G. McCoy, the "pioneer western cattle shipper," wrote his "Historic Sketches of the Cattle Trade of the West and Southwest," the railroad's chief rival as the butt of stockmen's criticism was the meat packer. Yet

sheepmen were much less interested than cattlemen in the early efforts to regulate the packing industry. Significantly it was called the "beef trust" and cartoonists selected porcine figures to depict its officials. The probable reason for lack of sheep participation was that up to the early eighties, mutton and lamb entered the meat trade through local butchers. It was produced east of the Mississippi on small farms, and only a few individual animals were involved in each shipment. Buyers were relatively numerous, although all were small operators, and none had begun operating on a national scale. Most sheep and lambs originated on diversified farms where the price level of a single day, or of a single market, would neither establish nor destroy the grower's profit for the year.

As the eighties opened, control of the National Wool Growers' Association was centered in the East, A. M. Garland of Illinois being president, and W. H. Markham of New York, secretary. Both men had predominant wool, rather than mutton, interests, and few members of the Association were identified with mutton breeds. When leaders changed in 1883 the wool interest was still overwhelming, and no attention was paid to the developing feeding industry of the West. Moreover, the early sheep feeders were unorganized. They paid more attention to getting their animals to market than to worrying about conditions at the market or the activities of the National Wool Growers' Association.

There was little direct contact between the larger wool growers and the packers. In addition, there was less cause for friction between these two interests than between the cattlemen and packers, since wether and lamb prices showed less daily fluctuation. When the big feeders in the Platte, Cache-la-Poudre, Kansas, and Arkansas river valleys started shipping carloads in the eighties, the markets at

Omaha, Chicago, and Kansas City were able to handle them without difficulty, and few matters of disagreement developed before World War I.

The first controversies were based on the buyer-and-seller relationship. These began to develop about 1915, since before that date the majority of sales by range wool growers on public markets had been to feedlot buyers. A very few western sheepmen fattened out the wethers and lambs that they raised, the pioneer in this movement being Senator Francis E. Warren of Cheyenne. Hence when markets had been unsatisfactory, the grower blamed the feeder buyer, and the latter proved a buffer between the sheep producer and the packer. The specialized feeders themselves, before 1915, seldom complained of their relationships with the markets and the large packers, for the outlet furnished for their feedstuffs via mutton and dressed lamb was much more satisfactory than anything they had experienced earlier.

By World War I the American National Livestock Association was well launched on the campaign that led to the Packer Consent Decree of 1920, and the Packer and Stockyard Act of 1921. Numerous accusations were made against the packers: charges of "sitting on the fence" when the growers thought they should be bidding actively on lambs; claims of dividing the receipts at markets to reduce competition; assertions of controlling the price-making mechanism through the ownership of stockyards, market newspapers, and stockyard banks. Most influential of all was the antipathy then against "big business," prevalent among the public. It was generally assumed that business grew big through dishonesty rather than through efficiency of service and low costs of operation.

Many practices complained of were the inverse of what the salesmen used when markets were strongly bullish from

the growers' standpoint. When buyers "sat on the fence" and would not bid until late in the day, after one of the shippers or his agent weakened, prices broke. But on days when the sellers had the upper hand, the commission men would price their lambs so high that no lambs would move to packing houses—where the pressure of keeping gangs at work was an all-important consideration. This last situation led to difficulties later. To overcome the operational problem, a commission man would often allow a buyer to deliver enough lambs at the packing house to permit the slaughter gangs to operate. The price was agreed on the basis of "the market," a "nickel above the market," a "dime under the market," and so on, according to the quality of the animals involved. This practice was assumed to be followed much more frequently than the officials of the National Wool Growers liked in the thirties, and many conferences were held by its marketing committee and the packers in straightening the matter out.

During the Federal Trade Commission investigations following World War I, many shippers reported that when they decided not to sell their sheep on the market where they were originally shown but instead forwarded them to another market farther east, the packer would notify the market to which they were forwarded as to his bid, and that the packers at the new market would not exceed it. No one seemed to figure that lambs forwarded to a new market lose bloom and quality in such an operation and were actually worth less, except on a runaway market, hence the charge attracted more attention than its importance warranted.

At times wool growers objected because the packers did not offer strong enough competition against the feeder buyer in purchasing heavy, half-fat, or "warmed-up" lambs, while the buyer of feeders

objected with equal forcefulness when the packer competition was active.

In general, the wool growers were not nearly as disturbed during agitation under the Congressional and Federal Trade Commission investigations (1918–20) as either the cattlemen or hogmen. Fewer grades and classes of sheep and lambs existed than of cattle or hogs, hence there were fewer opportunities for divergence of opinion. Also, marketing of lambs and wethers was much more orderly. Nearly all of the larger markets were served by feedyards from twenty to a hundred miles distant along the main railroads which supplied them. At these yards the sheep were unloaded, rested, filled, and sent into market in accordance with changes in demand. The supply on any one day could be adjusted more readily to market requirements, and there were less violent fluctuations in market prices. Before the first World War, none of the problems of marketing milk-fat lambs direct from their mothers had developed, and other lambs not adapted to holding in feedlots were almost negligible.

However, as a matter of principle, the National Wool Growers believed that greater supervision over the marketing agencies and packers was necessary and desirable. Naturally the sheep interests approved of any move that promised to increase the competition of the existing buyers at the markets, or that would attract additional buyers to them. The Federal Trade Commission's charges that the principal packers had agreements as to the percentage of livestock purchased at each market held direct interest for them, yet none of the witnesses from their associations testified on this issue before the Congressional committees which ultimately drew up the Packer and Stockyard Act. The same situation applied to the allegation of excessive profits,

and the abuse of power through ownership of stockyards, banks, livestock loan companies, market newspapers, etc. In this field, more concern was expressed over the nature and the quality of the services rendered than over the ownership of the facilities themselves.

Testifying before the Committee on Interstate and Foreign Commerce of the House of Representatives on January 20, 1919, President Frank J. Hagenbarth of the National Wool Growers opposed the particular type and degree of government control of the meat packing industry proposed by the Simms Bill, because of "a fundamental disbelief in government activity in private affairs beyond that degree which expediency or necessity makes imperative."<sup>14</sup>

He favored sufficient government supervision to curb abuse of power by the packers, and advocated some type of conservative legislation to accomplish this, rather than regulation by bureau without specific laws, "in order that this eternal hubbub and disturbance in the meat business, and these attacks against the packers, whether right or wrong, which are reflected into our business as producers, may be put to a stop."<sup>15</sup>

Hagenbarth pointed out that the proposed legislation was apparently designed to punish packers for sins committed a quarter of a century before—referring to an alleged scheme to regulate beef distribution, prices, and profits, which the Attorney General of the United States had dubbed "the Veeder Pool"—and reminded the Committee that the offenses charged, if proved, were committed at a time when the general business ethics of the entire country

<sup>14</sup> Frank J. Hagenbarth, *Testimony*, January 20, 1919, before Committee on Interstate and Foreign Commerce, House of Representatives, on H. R. 13,324, Sixty-fifth Congress, Third Session, 1919, Part I, 601.

<sup>15</sup> *Ibid.*, 603.

were on a much lower level. Hagenbarth insisted that the producer's fate was tied up with the ultimate consumer, and visualized the penalty to be paid by the producer, if the consumer believed that the packer was robbing him.<sup>16</sup>

The intense interest of the wool grower in the consumer phase was demonstrated by Dr. J. M. Wilson, President of the Wyoming Wool Growers, who represented his own association and those of Idaho and Montana in considering the Simms bill. He quoted a press dispatch<sup>17</sup> published February 5, 1919, which stated that the Federal Trade Commission findings would be read into the records of the London Board of Trade, and of the British Ministry of Food and Agriculture. He pointed out that this was an *ex parte* statement, and indicated the danger that the British might regard it as judicial findings, which would react still further against American meat products seeking entry there.

Somewhat later that same season, Senator W. A. Drake, then the leading lamb feeder of Fort Collins, Colorado, described the uncertainties in his enterprise, which developed just ahead of the debacle of 1920 in the sheep industry. He testified before the Senate Committee on Agriculture and Forestry:

On account of the agitation about the high cost of living, the high price asked for feeders, and the uncertainties of how the proposed legislation would affect us, I do not believe a single contract has been made for fall delivery. Personally I borrow from three to four hundred thousand dollars annually to carry on my sheep feeding operations for the year. I have not contracted for a lamb or made arrangements to borrow any money as yet this year, whereas in each year formerly such arrangements have been made long before this date. Our bankers tell me no one is trying to make arrangements for lamb feeding this fall. If you pass laws to scare the producer from filling his feedlots, you will only make the cost of living higher. . . . All of this agitation hurts, and makes the producer timid. There is no way to reduce the high cost of living but by increased production. . . . If you succeed in licensing the packer, our farmers

are afraid you will try it on us next. We think this proposed legislation will be the opening wedge to tie the producer hand and foot.<sup>18</sup>

While the latter statement seemed extravagant at the time to many stockmen and other interests, the prophetic nature of Senator Drake's testimony was evidenced by regulations put into effect during World War II. Many measures, in the nature of social revolution and affecting agricultural prices and procedure, then were introduced under the guise of aiding the war effort or controlling inflation.

Yet, it should not be assumed that the Wool Growers opposed the position of the cattle, swine, and general farm organizations. It just happened, at the time of the agitation against the packers, that the wool growers' marketing problems arose from difficulties other than their relations with the lamb and sheep slaughterers.

#### WOOL GROWERS' PROMOTIONAL EFFORTS

The interesting aspect of this earlier period was that the wool growers were not particularly affected by the emotions generated among other classes of stockmen. However, this did not mean that wool grower-packer relations were satisfactory, for the 1920's and 1930's saw many points of issue. In general they were connected with the conduct or economics of the business, and the attempts of the sheepmen to improve quality and promote lamb consumption. Before World War I, wool growers were

<sup>16</sup> Hagenbarth, *Testimony*, January 20, 1919, 607.

<sup>17</sup> Dr. J. M. Wilson, *Testimony*, March 30, 1919, before Committee on Interstate and Foreign Commerce, House of Representatives, on H. R. 13,324, Sixty-fifth Congress, Third Session, 1919, Part V, 1883.

<sup>18</sup> W. A. Drake, *Testimony*, Committee on Agriculture and Forestry, United States Senate, on Senate 2199 and 2202, Sixty-sixth Congress, First Session, 1919, 293.

expressing concern over the light per capita consumption of mutton and lamb.

During the last decade of the nineteenth century, about 75 per cent of the market receipts were yearling and two-year-old wethers, and 15 per cent were ewes.<sup>19</sup> Many were badly finished, tough, and "sheepy" flavored. The first decade of the present century saw the shift on the range to the ewe-and-lamb basis of production, and efforts by growers and packers to bring about wider acceptance of lamb meat by the general public. The eastern demand for fancy Easter lambs, and the success of the early Kentucky, Tennessee, and Missouri milk-fat lambs on the market (especially the latter at St. Louis), led to emulation among western growers. Not a load of northwestern lambs was normally available for slaughter before July 1, and in June only a few were coming from California.

In January, 1911, Dr. S. W. McClure was elected Secretary of the National Wool Growers, and immediately put pressure behind the lamb consumption movement. That April he helped defeat the proposal to place dressed lamb and mutton on the free list in the Underwood Tariff. Then he initiated the first National Ram Sale, set for September 6 to 11, 1915, but later canceled on account of the foot-and-mouth quarantine.

More than any other factor, the National Ram Sale, under the auspices of the National Wool Growers' Association, led to the distribution of black-faced rams among western flocks, and the stimulation of milk-fat lamb production. By 1920, California milk-fat lambs were regularly on the market by the first of April, and Idaho and Washington lambs by June. Before western milk-fat lambs were common, ewes sold within a dollar per live hundredweight of lambs. Afterward the margin widened to around three dollars per hundredweight, based on the general price level, and

during World Wars I and II increased to six to eight dollars (see page 357).

Yet supply of quality lamb did not stimulate consumption as much as desired. Hence in 1919 a promotion campaign was organized by the National Wool Growers' Association, with L. L. Heller of Chicago in charge. One interesting byproduct was the publication of a pamphlet, *Whetting Uncle Sam's Appetite for Lamb*, which was a pioneer effort in promoting any form of meat consumption.

In 1923, the National Live Stock and Meat Board was organized, composed of sheep, cattle, and swine producers, feeders, marketing agents, packers, and meat retailers. The National Wool Growers were represented on the new Board by Fred R. Marshall, elected Secretary of the Association in 1920. By 1927, the Board had become so effective that the National Wool Growers inaugurated lamb-cutting demonstrations, through a special fund paid to the Board. In studying the bottlenecks which restricted lamb consumption, the Association found large areas in which meat retailers did not know how to cut lamb carcasses profitably, or to make their cuts attractive to the consumer. Hence such cutting demonstrations to the retailer offered quick opportunity for improvement. This, too, was pioneer work, and anteceded by several years other growers' associations' efforts in promoting their products.

In addition to improving milk-fat lambs through black-faced bucks, a great advancement was obtained in fed lambs. The old-type wrinkly Delaines and Ramboilletts were often slow maturing, and were not satisfactory from a market standpoint because their heavy pelts lowered their dressing percentage. Grad-

<sup>19</sup> A. E. DeRicqles, "Improving Utah Cattle," *Deseret News*, 353, No. 27 (August 1, 1939):15.

ually these were replaced by medium-sized, trimly-turned, firm-finishing lambs that yielded a commercial carcass which was even more satisfactory than the higher-finishing mutton breeds.

#### QUALITY DIFFERENTIALS

These attempts to improve quality led to most of the disputes with the packers. In the period just following World War I the majority of packers were sustaining higher overhead and unit costs than they could readily support, so they made strenuous efforts to increase their slaughter and spread their costs over more pounds of lamb. During the war, wages, freight rates, taxes, and other costs had risen tremendously. In most instances they could not be reduced in line with postwar volume and wholesale prices. This made it possible for a packer to cut his drove costs more by buying larger numbers than by making the proper price differential from market tops, based on quality of carcasses or as related to cost of production for the grower. Sheepmen realized that there was no compulsion at the market to pay quality differentials in line with cost of production, but they felt that the finishing of high-grade lambs, if consumers wanted them, required price differentials that would reflect such increases in costs.

In the 1930's, when the "competition for numbers" was strong, the opinion developed that particular commission companies had strong tie-ups with certain slaughterers. At least the majority of lambs consigned to such a commission company seemed to end up in a single slaughterer's cooler. Complaints were filed with the Packer and Stockyard Administration. But the situation, if it existed at all, was apparently only temporary, and disappeared as the market stabilized after the depression of the early thirties.

The pressure of this overhead on the packer, which also had asserted itself during the depression of the early twenties, made it easier for a commission salesman to make the better quality lambs offered by him "carry" the poorer ones, and led to the practice of "alley buying." According to the growers, this practice consisted in bidding on the average quality of a commission man's string of lambs, even when they belonged to several individual shippers. The complaint was that the commission man had to assign arbitrary prices to each grade, or shipment, rather than arrive at a true value by trading on each grade with the buyer. Shippers of quality lambs were naturally the most dissatisfied. In fact, the shippers of poorer grades stood to gain. The lamb marketing committee of the National Wool Growers not only felt that the practice would discourage further lamb improvement if it became established, but that it would defeat the purposes of the lamb campaign which the Association had been sponsoring. The committee believed that improved and standardized quality lay at the foundation of a wider use of lamb meat.

During World War II the margin between ceiling prices on different grades of carcass lamb again did not repay the feeders for making better finished lambs. This further disturbed the campaign to increase the demand for lamb. The differences in grade values established by government regulation were so small that packers again had as strong incentive to buy for numbers as to recognize quality. Many producers of milk-fat lambs felt that packers and government alike were trying to discourage efforts that could broaden their outlets. Under war conditions each branch of the industry had to take care of itself. Growers were particularly handicapped by manpower shortages, and by the inability to

operate profitably under the ceilings set on the products of their lambs. Sheep population for the entire country declined 27 per cent in four years.

#### STATE WOOL GROWERS' ASSOCIATIONS

State organizations of wool growers, especially in the West, rendered local service to their members. Nearly all of them took active part in public land questions, in disease and predatory animal control, and in support of state and national legislation. In many states they saved the wool growers money through stimulating sensible assessor's valuations, proper tax rates, and economical leasing rates on state grazing lands. In early days some of the state associations tried to represent the growers in establishing shearing rates and setting up shearing contracts. But this was found to be imprudent. It placed the association officials in the position of determining which section of the state should have the shearing crews first, and occasionally required settling the order of precedence between members—a hazardous performance politically.

The oldest western state association was in California, organized September 18, 1860—five years before the National Association. Its announced purpose was "to advance the interests of the wool-growing and sheep-raising industry, for the mutual protection and benefit of all persons directly or indirectly in the business." After years of experiment, thirteen branch associations or regional groups were established, and each of these local organizations was asked to pass on all questions that came before the state officers between meetings. Local branches also originated questions for the consideration of other branches and the state association.

The state wool growers' organization has prevented the passage of laws detri-

mental to the sheep industry, and has aided beneficial legislation. Outstanding are the California dog laws, adaptable to states where dogs under limited restraint serve other useful functions. The Association is represented at sessions of the state legislature and the national Congress.

Through its attorney the members can obtain assistance in maintaining and enforcing trespass laws, and in protecting their property. He also advises on sales of livestock and wool, with especial reference to methods and terms of payment. He checks the licenses of buyers under the State Division of Market Enforcement, and aids members in getting prompt and full payment on all agreements relative to the sale of sheep, lambs, and wool.

The State Association has maintained a traffic department which examines all freight bills of members submitted for review, and makes claims for adjustments in freight when warranted. It assists in the collection of loss and damage claims, and in getting proper facilities for the rail shipment of sheep. This department is particularly interested in expediting shipments at every possible outlet and in removing rate handicaps for the members' sheep or their products.

The product phase of the industry is of such importance to the Association that it cooperates with a number of other organizations in advertising and promotional programs. Its members actively subscribe to the National Live Stock and Meat Board in increasing meat and lamb consumption, and the Association appropriates funds for the promotional efforts of the American Wool Council to increase the use of wool.

California wool growers also maintain a supply department, through which members may purchase wool bags, fleece, twine, branding fluid, drugs and reme-

dies used in controlling sheep diseases, shears, sheep-bells, camp equipment, and various other essentials to the good management of flocks. In addition, quality woolen merchandise, such as blankets, sheep skins, neckties, suitings, and other items, are stocked and sold to the general public.

A weekly journal called *The California Wool Grower* provides timely market information—both domestic and foreign—on lambs and wool, presents informative articles on sheep breeding, feeding, management, disease, and other subjects of importance in the production of sheep and wool, and keeps the membership informed on legislative and political matters.

One of the most important activities is the annual California Ram Sale and Wool Show held each year at the State Fair Grounds in Sacramento. The Agricultural Extension Service, the Animal Husbandry Division of the College of Agriculture, and the Division of Animal Industry of the State Department of Agriculture cooperate in these two events. Large crowds of sheepmen attend from all parts of California and from nearby states.

The Ram Sale is a reliable clearing house for superior stud and range-type rams. The Wool Show is held for educational purposes, its aim being to help growers learn the characteristics, quality, and market value of their wool clips. The two events emphasize the importance of constructive breeding practices which will bring about improvement in both wool and lamb crops. The Wool Show tries to develop the exhibition of fleeces representative of average rather than top conditions. No other state association has had such a comprehensive scheme of service as California.<sup>20</sup>

The Idaho Association was formed in

1894, at Mountain Home, and adopted this preamble to its constitution:

For the purpose of protecting the industry of wool growing in the state of Idaho, and for the purpose of protecting the rights of persons engaged in the industry; for the purpose of protecting ourselves against the enactment of laws which are designed to destroy our rights and crush our business; for the purpose of obtaining lower transportation rates on our products; for the purpose of marketing our products to the best advantage, and at least expense to the grower; for the purpose of reducing the running expenses in connection with the sheep industry; for the prevention of malicious poisoning of sheep, and the prosecution of persons concerned in it; for the purpose of having a uniform taxation on sheep throughout the State, we, the undersigned wool growers and handlers of wool in the state of Idaho, do make and establish this Constitution for ourselves as an associate body.

One problem of the Idaho Association was salt. Between 1900 and 1905, "the Salt Trust just about had its own way," but in the latter year the Association purchased and began operating a salt bed in Utah. Annual business reports were presented to the membership, the main purpose of operation being to keep the price of salt within reason. "To show the seriousness of this problem, the Association purchased the salt bed, operated it, and put salt on the cars at a profit for a fourth of the price charged by . . . the Salt Trust."<sup>21</sup>

The first Idaho Ram Sale was sponsored in 1918, and was continued at Filer each year after 1924 without interruption. A second sale was started by A. J. Knollin in 1927 at Pocatello, and it was christened the Fall Ram Sale. To the quality of rams distributed by these sales is credited the increase in fleece yields throughout the state from three-pound to nine and ten-pound averages. Also to them may be attributed the efficiency of production that has permitted

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<sup>20</sup> See General Appendix E.

<sup>21</sup> Claar, Letter, April 10, 1939.

the replacement in slaughter of yearling to three-year-old wethers by four-and-a-half months lambs.

The Montana Association was organized at Fort Benton in 1883, and was distinguished by the fact that the first half century of its service was under the leadership of two men—Paris Gibson of Great Falls, who was president from 1883 to 1905, and Senator Charles H. Williams of Deer Lodge. He was president from 1905 to 1934, with the exception of two years, 1931–32, after which he was called back again. The Montana Association more than any other took an intimate part in the operation of marketing organizations for wool and lambs. It developed them as cooperatives under government sponsorship, but after a few years of experience divorced them from the association activities. The lesson apparently demonstrated by all associations was that no service for members should be carried out on a profit basis. A wool growers' association seemed most efficient in serving its members, but not as an operating business organization.

The Wyoming Wool Growers' Association was organized under the auspices of the State Board of Sheep Commissioners. Early in 1905, a newspaper call was issued for a meeting of flockmasters of the state, "to organize a state association for the mutual protection and the advancement of the industry. The meeting was called by Dr. J. M. Wilson, then president of the State Sheep Board. Later in the session he was elected president of the new organization.

The chief task was to free the state of scab. Dr. A. D. Melvin, then Assistant Chief of the Bureau of Animal Industry, spoke on federal cooperation in the eradication of infectious diseases, and the resolutions urged a campaign against all

sheep diseases. The forestry problem was introduced through a resolution requesting that the number of sheep allowed on the Forest Reserves be increased from approximately a third of a million head to one-and-a-half million, and that only Wyoming residents be allowed to graze on the Reserves in the state. In this connection, its secretary for more than a quarter century, J. Byron Wilson, has played a highly constructive role.

Leading figures of the state's industry formed the organization—Governor B. B. Brooks, Robert Taylor, John W. Hay, Colonel E. J. Bell, Tim Kinney, T. A. Cosgriff, M. P. Wheeler, Senator Francis E. Warren, John D. Holliday, William Hogg, F. A. Hadsell, J. D. Woodruff, Richard Young, Robert Selway, and Edwin Chapman. Since this was the formative period for many government programs—especially in the national forests, predatory animal control, and disease eradication—the Wyoming state association has held a closer individual relation to federal policies than any other association not national in scope.

The remaining organizations had interesting experiences in particular fields: Washington and Oregon with the opening of the last summer ranges to be established; and New Mexico and Arizona with Indian flocks. Reference has already been made to the Texas experience with wool warehouses, and herding under fence. Each state has had especial problems but the foregoing tasks of particular associations are typical.

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Outstanding in the record of sheepmen's organizations is their broad viewpoint. The diversity of problems in the sheep business, the direct reflection of international wools on the prices flockmasters receive at each shearing, the

management factors involved in the double income from wool and lambs, the contacts with legislators, industries, and federal administrators—all combine to give flockmasters a richness of experience, a considered judgment, and a patience that few other stockmen could develop.

The trail of sheep across the American horizon touches every phase of life from Conquistador and Pilgrim father to final frontiers and industrial empires. A climax was reached in World War II. American armies clothed in durable woolens better than any other soldier or sailor ever enjoyed, and fed more abundantly with lamb in a more varied diet than any other servicemen ever received, have matured the sturdy heritage that underlay the forefathers' quest for freedom. The economy that made this

possible stands on a framework of producers, processors, manufacturers, laborers, and distributors that can augur an even more impressive future.

But all this is silhouetted by a background—a background that links the flock with basic human activities and that, with the toiling shepherd, brings

The wandering sheep together; as he waves  
Them on, his crook's head catches the red  
light . . .  
(Then) by darkening lanes we wend  
Behind the pattering feet and tinkling bells.  
It is the hour now of that wondrous blue,  
Deep, rich, and luminous, old painters used  
To drape about their stately dreams of God. . . .  
And now the shepherd's lanthorn shines about  
His folded flocks, its mellow orange ray  
Making a lovelier, richer blue above,  
And, all around, the little ring of light—<sup>29</sup>

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<sup>29</sup> Habberton Lulham.

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## Appendices

### GENERAL APPENDIX A

The "Johnson County Cattlemen's War" was the outcome of friction between the big cattle operators of Wyoming and the homesteaders whose respective interests as range-men and crop-raisers conflicted. At first the antagonism was between the large cattle companies and the small cattle ranchers in competition with them. To the latter were added cowboys who had left the employ of the big companies and were developing herds of their own. Not only was there conflict over range, but many of the rapidly growing small ranchers were apparently "mavericking" calves and rebranding older stock belonging to the big companies. Contrariwise, the small rancher felt that the big companies had control of the cattle association and the territorial government. Cattle stealing from the big companies became almost respectable, and many homesteaders considered it an inalienable right to slaughter anyone's calves or yearlings to supply their larders. In many cases the granger pleaded self defense as the cattle raided his crops. He either ignored, or was unable to comply with, territorial laws requiring that farm land must be fenced by the owner to protect against trespass. Finally the local juries made no attempt to protect the property of the larger operators and consistently found cattle rustlers "not guilty."

In November, 1891, two suspected "rustlers" were ambushed and shot in Johnson County, supposedly by an inspector of the cattle association. The latter escaped by an alibi, but by the spring of 1892 a band of fifty armed men set out to oppose the Territorial Livestock Board by force. Honest folk had been forced to sign a petition to set up independent roundup districts and to require the Livestock Board to return money held by it to the people

who had shipped the animals regardless of brand. On April 4, the Stock Growers' Association met, and after its adjournment, an organized group left by special train for Casper and thence across country to Kaycee and Buffalo.

The invasion threw local citizens of honest intentions on the same side as the rustlers, and several respected cattle owners were mingled with twenty-five hired Texas gunmen and cowhands who were the core of the invasion party. Several casualties occurred, the party was held up and besieged, and federal troops took control. The case lagged in court for many months, after which the accused were dismissed and no settlement was obtained. But order finally came to the country despite the passions and the curious intermingling of good and lawless elements on both sides.

### GENERAL APPENDIX B

#### PRESIDENTS OF THE SHEEP SHEARERS' UNION

1903-04: M. C. Forrest, born Genoa Junction, Wisconsin, and died in automobile accident about 1920 at Ft. Benton, Montana.

1904-07: Platt Richardson, native born Montanan who operated a mercantile store at Lewistown, Montana, after retiring from presidency, is now deceased.

1907-12: M. C. Forrest.

1912-14: J. E. Lillywhite, ranch-born near Brigham City, Utah, developed a string of Thoroughbred race horses after retiring from presidency.

1914-18: P. A. Clark, native of Utah and graduate of Brigham Young University, Provo, Utah, developed a mercantile business at Parowan, Utah, after retiring from presidency, and was at one time postmaster.

1918-20: E. S. Bartlett, graduate of Michigan State Agricultural College, started as

machine shearer in the West about 1909. Co-inventor of the J. B. Shearing Machine, and since 1924 head of the machinery and hardware division of the Chicago Flexible Shaft Company.

1920-26: William McLennan, native of Australia, learned the sheep business there, and graduated from the University of Melbourne in law. He was a wool expert, identified with woolen mills in San Francisco after retiring from presidency. 1926-: A. A. Evans, a native of Wales, was a journeyman sheep shearer and stock grower.

#### GENERAL APPENDIX C

##### LIVESTOCK LOAN COMPANIES BACKED BY PACKER FAMILIES

*Armour*—Cattle Feeders Loan Co., Omaha, Nebraska; Fort Worth Cattle Loan Co., Fort Worth, Texas; Spokane Cattle Loan Co., Spokane, Washington; Denver Livestock Loan Co., Denver, Colorado.

*Armour-Cudahy*—Stockyards Loan Co., Kansas City, Missouri.

*Cudahy*—Wichita Cattle Loan Co., Wichita, Kansas.

*Morris*—Drovers' Cattle Loan Co., Kansas City, Missouri; National Cattle Loan Co., East St. Louis, Illinois; Oklahoma Cattle Loan Co., Oklahoma City, Oklahoma; El Paso Cattle Loan Co., El Paso, Texas.

*Swift*—St. Paul Cattle Loan Co., St. Paul, Minnesota; Sioux City Cattle Loan Co., Sioux City, Iowa; St. Joseph Cattle Loan Co., St. Joseph, Missouri; San Francisco Livestock Loan Co., San Francisco, California; Portland Livestock Loan Co., Portland, Oregon.

*Wilson*—Southwest Cattle Loan Co., Los Angeles, California.

#### GENERAL APPENDIX D

##### NAVAJO INDIANS

The Navajos were a tribe of Indians that in recent centuries lived in northwestern New Mexico, northeastern Arizona, and southwestern Colorado. They were so strong and warlike that they were subjugated neither by the Spaniards nor the Mexicans. According to tradition and anthropological evidence, they migrated to their present territory from Canada sometime between the twelfth and fifteenth centuries. The more civilized Indian tribes, occupying pueblos, were apparently strong enough at

that date to keep the intruders out of the river valleys and best watered sections, but could not cope with their raids and forays. The Navajos received additions from other tribes, especially the Apaches, which accounts for the mixed racial characters they show today.

Their original sheep were not obtained directly from the Spanish, but were apparently taken by pillage from the pueblos of New Mexico, beginning about 1660. Several tribes of Indians had sheep before the Navajos, particularly the Pueblos, Moquis (Hopis), and Pimas, but the Navajos are distinguished by the fact that they developed and preserved their original flocks with little or no assistance from the *padres*. Prior to 1680 they were strong enough only to raid the pueblos, but during the Indian revolt of 1680-82, they remained neutral, plundering Spaniards and other Indians alike. They thus secured many sheep, cattle, and horses, and became stronger while the Pueblo tribes became weaker during the Spanish reconquest.

The acquisition of so much livestock brought about a revolution in their style of living, and the Navajos gradually substituted phases of pastoral life for their habitual nomadic warfare. However, they persisted sufficiently in their depredations that in 1863 Brigadier General James H. Carleton dispatched a force under the direct command of Colonel Christopher (Kit) Carson, that captured or destroyed their herds and flocks, as well as made prisoners of a few of their leaders. This resulted in the surrender of the tribe and their transfer to Bosque Redondo on the Pecos River (now Fort Sumner, New Mexico), in the early spring of 1864. They were held there until 1868, when they were permitted to return to their present reservation, and by 1870 they again had livestock.

In 1940, about fifty thousand Navajos were living on sixteen million acres and were marketing about three hundred thousand lambs annually. Approximately one-third of these were sold as feeders and the remainder were used for replacements and mutton.

#### GENERAL APPENDIX E

##### 1945 ACTIVITIES, CALIFORNIA WOOL GROWERS' ASSOCIATION

Illustrative of the variety of subjects which an active state woolgrowers' association handles is the following tabulation taken from the 1945 fall meetings of the branch

associations of the California Wool Growers' Association held at various points throughout the state. The report was presented at each meeting by W. P. Wing, secretary of the state woolgrowers' association. The material was presented topically, and was discussed thereafter by the secretary.

"Your Association during the last year, through the National Wool Growers, was represented at Washington, D. C., in securing legislation and regulations favorable to the industry, and in many cases in preventing the enactment of bills and rules detrimental to lamb and wool producers. Action has been taken by your state association secretary on a variety of subjects, which are listed by topic, with some comments on specific matters.

#### **"CCC WOOL PURCHASE**

Fleece Wool

Pulled Wool

Sheep Skins

Will continue until June 30, 1946, probably will continue until October or November, 1946.

Prices paid will be same as this year—but need for further clarifications.

Effect of price controls on lambs, ewes, and wool sheepskins.

Tightening of appraisal values.

Refusal to permit sale to CCC of California eight month wools unless scoured.

#### **"WOOL PRODUCTION**

Necessity of all engaged in an industry of advertising the products they are producing.

Institutional advertising and promotion is very effective.

Today competition of other fibers is keen and will particularly be so with surpluses after the postwar emergency is over.

Staple fibre-rayon, nylon, cotton, silk—comparisons.

American Wool Council effective.

F. E. Ackerman, Executive Director, 1450 Broadway, New York 18.

#### **"TARIFF**

Backbone of sheep-raising and wool-growing industry of the United States of America.

'California's agriculture's greatest market has always been and will continue to be the home market.' WILLIAM TESCHE. California Walnut Growers' Association.

There must be reasonable tariff protection.

#### **"SUBSIDIES**

Secretary of Agriculture, Clinton P. Anderson, declared (September 20) end of war has made full scale continuation of hold-the-line subsidies unnecessary and expressed belief that with very few exceptions all such subsidies could be terminated by June 30, 1946.

Eliminate our wartime food subsidies and at same time protect producers, processors, and consumers.

Cattlemen figure drop in price—Army buying less—workers also because of lower purchasing power.

Never before did American consumers eat so well, despite rationing, because wages were high.

Extended strikes will reduce purchasing power.

Shipment of food to Europe.

Mrs. Dwight Morrow headed forty-seven national organizations appealing to President Truman urging prompt increases in food shipments to Europe.

UNRRA responsibilities increasing.

Britain may prepare trade war with United States.

United States may extend loan to Great Britain. She is America's best customer—one to four billion dollars.

Agreement on future value of the sterling—which will be devalued 20 per cent sometime in the future.

Not immediately because cost of American purchases would be increased if the sterling became cheaper.

Thus price of Australian wool purchased by American importers would be less.

Should price control be retained?

'Beyond the setting of initial prices for products whose manufacture was suspended during the war, the continuation of price control is impracticable. Without wage stabilization and without rationing, the OPA is not in a position to hold the price line. And the process of continuously reviewing and readjusting a multitude of prices to meet the needs of rapidly changing situation would be so time-consuming that the expansion of production and employment would inevitably be retarded.'

BROOKINGS INSTITUTION, September, 1945.

#### **"LAMB PROMOTION**

Competition of other foods necessitates all interested contributing in support of long-time program.

Necessity for research demonstrations.

National Livestock and Meat Board—energetic, alert.

R. C. Pollock, General Manager, 407 So. Dearborn Street, Chicago 5, Illinois.

Through this Board progress has been made and will be made in the future.

#### *"CEILINGS ON LAMB—WOOL—SHEEP—SHEEPSKINS*

Some agricultural growers protesting removal of ceilings—stating ceilings have tendency to become floor—and removal of ceilings will lower prices. Other growers consider this fallacious.

#### *"STATEMENT BEFORE SECRETARY ANDERSON ON FOOD SHORTAGE*

Howard Vaughn represented Association.

#### *"NATIONAL LAMB INDUSTRY COMMITTEE*

Howard Vaughn represents California and Pacific Coast on National Lamb Advisory Committee to OPA.

Ration points on lamb and sheep.

Restriction Regulations by WPB and OPA.

Howard Vaughn—two trips to the East.

Securing purchase of dressed lamb and ewes by Army and UNRRA by and for foreign governments—telescoped and wrapped.

#### *"REMOVAL OF TRUCK RATIONING*

Restrictive regulations in purchase of trucks.

Pick-ups.

Heavy duty livestock trucks and trailers.

#### *"TRANSPORTATION*

Rail

Water

Truck

Rates

Service

Charges

Traffic Department

Charles E. Blaine

Auditing Freight Bills

Wool freight rate investigation.

Dressed Meat Rate Case—Westbound.

Removal of O.D.T. restrictions.

#### *"REMOVAL OF RESTRICTIONS BY WPB*

On construction, and securing tools for sheep industry—shepherd crooks.

#### *"OPPOSITION TO HIGHER GRAZING FEES*

Taylor Act Grazing Districts.

United States Forest Service.

#### *"OVER-ALL PROTEIN FEED SITUATION*

Production for United States of 22 per cent more turkeys, 23 per cent more chickens, feeding hogs 40 to 60 pounds heavier.

Same time last year protein supply was no larger than previous year—this year's supply not available today, but smaller. Some copra—soybean meal.

"Your California Wool Growers Association also takes direct effective action in protecting and promoting the welfare of the industry in California—

State Legislation:

Trespass on range property.

Livestock thievery.

Control of range land.

Control of predators.

State Department of Agriculture:

Regular Appropriation—\$28,000.

Special Appropriation—\$75,000

Fish and game:

Regular Appropriation—\$70,000.

Special Appropriation—\$75,000.

Dog Control.

Labor—Difficulties of agricultural labor—shearing.

Brush burning.

Reorganization of State Board of Forestry.

Bears.

Hunting.

Slaughtering.

State meat inspection.

Prevention of livestock disease by control of garbage.

Purchase of federal land by City of Los Angeles.

Appropriations for livestock services.

University and State schools.

State Department of Agriculture.

Lease of public land.

Motor vehicle taxes.

Restrictive legislation opposed by Association attorneys.

Railroad commission.

Treating domestic animals.

Unemployment insurance.

Better sheep and wool production.

California Ram Sale.

Relation of Wild Life to Sheep Production.

Management of Range.

Lassen County situation.  
 Control of sheep disease.  
 Control of noxious weeds.  
 Reapportionment of California legislature proposed by labor groups will spell death knell to agriculture.  
 Adjusting claims for members.

Sale of lambs and wool.

"The following are typical letters received at the Association office on which action was taken. They represent about 5 per cent of this class of letters received during the year. We welcome the opportunity to serve members, but point out that the physical nature of things to be done often limits or delays our service.

'Lost three sheep from cougar. Please notify right agency we need hunter. . . .' (*September 30*)—F.F.W.

'Buyer, a butcher, refuses to pay me subsidy on lamb. These were fat lambs for slaughter—what can I do. . . .' (Average weight—80 pounds.) (*October 2*)—O.R.

'California R.R. Commission to withhold definite action . . . need returns on our questionnaire of wool handled. . . .' (*October 3*)—C.E.B.

'Received your letter requesting we forward payments for American Wool Council. . . . Suggest you approach our California Representative. . . .' (*October 1*)—L.E.

'Note your request for foot-rot seateurs. French factory situation very difficult. Will send as soon as possible.' (*September 14*)—England.

'Klamath weed is encroaching. What can we do?' (*September 22*)—E.M.

'Dogs have killed eight of my sheep. What is State Dog Law?' (*September 28*)—J.L.

'Saw Senor Felipe Campuzano, Spanish Embassy, following our visit when you were here last week. He has turned matter over to Commercial Attaché.' (Importation of Basque (Spanish) shepherders.) (*October 1*) Washington, D. C.—C.J.S.W.

'Called Timberlake in Michigan on long distance phone about shepherds' crooks following your call on us. Should be in manufacture soon. He apparently is only manufacturer in U.S.A.' (*October 2*) Washington, D. C.—E.S.

'Appeared before Fish and Game Commission (as you requested) opposing removal of

sheep off Modoc National Forest, Tule Lake, Siskiyou County.' F. E. McMURPHY, Vice President, California Wool Growers' Association.

'City of Los Angeles is grabbing land at Mono Lake, pays \$1.25 per acre taking United States Forest Service and Grazing Service land now used by livestock men. Please attend special state investigation hearing at San Francisco September 15.'—R.C.

'Old ewes not moving at all. Please telephone Washington, D. C., to see if Government will buy for shipment to Europe.' (*October 3*)—G.N.

'Lambs are sticky. Points should be reduced. See what you can do with USDA and OPA in Washington, D. C.' (*September 19*)—D.A.

'More appropriations needed for College of Agriculture in its investigational work for sheep industry. Attend meeting for us September 28.'—A.S.

'My wool has been in hands of . . . primary handler for a year. Please find out cause of delay in settling.' (*October 1*)—G.F.

'My county committee does not pay lamb subsidy yet. What is the trouble? Please check with AAA and Washington, D. C.' (*October 3*)—G.E.

'We need protein feed. Can't get any. Please find out trouble.' (*September 24*)—R.D.F.

'We want to reseed our range by airplane. Where can we find someone to do this?' (*September 30*)—D.C.

'The rams I purchased from . . . have foot rot. Please advise what seller will do.' (*September 14*)—H.G.

'CCC won't appraise our eight months' wool in the grease. It is even one grade-free. This is discriminatory. . . . Take up for us with Washington.'—H.A.

'Please see why lease is not signed to graze on Army Camp. See Congressman Engle. It was to have been signed long ago and we have to move our livestock. Prompt action needed.' (*October 3*)—C.C.

'Some say an association secretary just rides a merry-go-round, or walks a treadmill. Foregoing subjects show why.'

W. P. WING, Secretary,  
*California Wool Growers' Association*

## GENERAL APPENDIX F

## CONTRACT BETWEEN THE INDIAN SERVICE AND VINCENTE ROMERO (National Archives)

52

Articles of Agreement: made and entered into this fifth day  
of U.S. M<sup>o</sup> 3<sup>rd</sup> of October eighteen hundred and sixty nine, between Vincente Romero  
Rev. Stamp of La Cueva, Mora County, Territory of New Mexico, his heirs, ex-  
Attached executors and administrators of the first part, and Major  
W<sup>m</sup> Clinton U.S. Army Superintendent of Indian Affairs, for  
New Mexico, in the Service of the United States of America, for  
and on behalf of the said United States of the second part.

This Agreement Witnesseth, that the aforesaid parties  
 have agreed, and by these presents do mutually covenant and  
 agree to and with each other in manner following:

First. The said Vincente Romero, shall deliver unto the  
 Agent for the Navajo Indians at Fort Defiance, New Mexico. One hundred (100) Male Goats (suitable for breeding purposes)  
 and Nine hundred (900) female Goats - not too old or too young  
 to bear kids - also Three hundred (300) Rams, and Thirteen thousand  
 seven hundred (13,700) Ewes, and both Goats & Sheep, must be all  
 healthy and suitable for stocking purposes - the delivery to  
 be completed on or before the first (1<sup>st</sup>) day of December, eighteen  
 hundred and sixty nine [1869]

Second. The said Vincente Romero, shall receive Two (2) Dollars for every Goat and Sheep delivered and accepted,  
 under this Contract.

Third. The said Indian Agent or his successor to be the  
 sole judge as to the quality of the Goats and Sheep, stipulated  
 to be delivered, and that in case of failure or deficiency in the  
 quality or quantity of Goats & Sheep stipulated to be delivered: then  
 the said party of the second shall have the right to supply  
 the deficiency by purchase in open market, and the said  
 Vincente Romero, shall be charged with the difference of cost.

Fourth. This contract may be terminated by the United  
 States, upon equitable principles, whenever the exigencies  
 of the service require it.

Fifth. No member of Congress is to be admitted to any share  
 or benefit to arise from this contract.

Sixth. This contract is subject to the approval of the Commissioner  
 of Indian Affairs.

In witness Whereof, we have hereunto set our hands and seals  
 the day and date first above written

Witnesses  
 Rafael Romero  
 David N. Catonach

Vincente Romero   
 W<sup>m</sup> Clinton   
 Maj U.S.A. Super Indian Affairs

We certify that the above corrections and interlineations were made  
 by our mutual consent before signing this contract -

Vincente Romero  
 W<sup>m</sup> Clinton  
 Major U.S.A. Super Indian Affairs

I know all mynd by these presents. That we Vincente Romero of La Cuna  
Mora County, Territory of New Mexico, Lehman Spiegelberg of Santa Fe, Santa  
Fe County, Territory of New Mexico, and Simon Seligman of Santa Fe,  
Santa Fe, County, Territory of New Mexico, are held and firmly bound  
unto the United States of America, in the sum of Sixty thousand (\$60,000.)  
dollars, lawful money of the United States; for which payment well  
and truly to be made, we bind ourselves and each of us, our and  
each of our heirs, executors and administrators, for and in the whole  
jointly and severally, firmly by these presents.

Sealed with our seals, dated the Eight day of October, in the year  
of our Lord eighteen hundred and sixty nine.

The nature of this Obligation is such, that if the above bounden Vincente  
Romero, Lehman Spiegelberg or Simon Seligman, their heirs, executors  
and administrators, or any of them, shall and do in all things  
well and truly observe, perform, fulfill, accomplish and keep all  
and singular the covenants, conditions, and agreements where  
ever, which on the part of the said Vincente Romero, his heirs  
executors, and administrators, are or ought to be observed, performed,  
fulfilled, accomplished and kept, comprised or mentioned in  
certain articles of agreement or contract bearing date the Fifth  
day of October 1849, between the said Vincente Romero and Major  
Wm Clinton U.S. Army, Superintendent of Indian Affairs for New  
Mexico, concerning the delivery of One hundred (100) male and nine  
hundred female Goats, Three hundred (300) Rams and Thirteen  
thousand seven hundred Eves Sheep, to the U.S. Indian  
Agent at Fort Defiance, New Mexico - then the above obligation  
to be void; otherwise to remain in full force and virtue.

Witnesses

Rafael Romero  
David A. Catonach

Vincente Romero  
L. Spiegelberg  
G. Seligman

25-<sup>a</sup> U.S. Int'l  
Rev stamp  
Attached

## STATISTICAL APPENDIX 1

(See page 198)

*J. A. Trescony in Account with D. Tideman*

"1881"

1	Pack Saddle.....	\$14.00	2	Brooms.....	\$ .75
1	Shovel.....	1.50		Spring Balances.....	.75
1	Spade.....	1.50		Padlock.....	.60
	Mattress and Pillows, etc.....	8.40		Rule.....	.25
1	Ham.....	1.55	1	Canteen.....	1.75
	Soup.....	.66	1	Box Sugar.....	3.00
1	Can Pepper.....	.50		Tea.....	1.40
1	Can Mustard.....	.50		Coffee Pot.....	.50
3/4	Lb. Tea.....	.50		Flour.....	3.75
	Lard.....	1.25	1	Bucket.....	1.00
	Sardines.....	1.00		Beans.....	.20
	Oysters.....	1.00	2	Gun and Cartridges.....	56.00
	Hatchet.....	1.00		Boxes Canned Beef.....	.75
	Hammer.....	1.00		Bed Stead.....	2.00
	Ax Handle.....	.40		Freight.....	40.00
1	Saw.....	1.75		Dog.....	5.00
	Staking Pin.....	.50		Muzzle and Chain.....	1.25
	Shears.....	1.75		Coffee.....	2.00
	Salt.....	1.25		Rope.....	.50
	Knife and Forks.....	.50			
2	Lanterns.....	2.00			\$ 178.21
2	Globes.....	.50		Amount of Bill.....	178.21
1	Pincers.....	.50		Amount for Rams.....	137.50
	Ear Marking.....	9.00		Amount for 1908 Sheep.....	3,100.50
1	Sheep Hook.....	1.00			
1	Hoe.....	1.25		Total amount.....	\$3,416.21
	Strychnine.....	2.00			

San Francisco, June 1, 1871

*Account Sales of Two Hundred and Seventeen (217) Bales Wool  
For Account of Mr. A. Trescony*

By CHRISTY AND WISE  
607 Front Street, between Jackson and Pacific

13 Bales Wool.....	3900-20: 3880	31x	\$ 1,202.80
45 do do .....	13393-68: 13325	31x	4,130.75
Tags.....	395	6x	23.70
115 Bales Wool.....	36544-175:36369	29x	10,547.01
Locks.....	397	6x	23.82
42 Bales Wool.....	12767-66: 12701	29x	3,683.29
2 " Tags.....	905-3: 905	6x	54.30
9 bundles Pelts 100 Skins 30x x30.....		110.00	\$19,775.67
100 c 80x x80			

## CHARGES

Freight per Steamer.....	\$ 239.65
Drayage and Storage.....	59.67
Insurance.....	79.95
Commission 2 1/2%.....	494.40 873.67

Net Balance due May 25/71..... \$18,902.00

## STATEMENT OF ACCOUNT

San Francisco, May 25, 1871

Mr. A. Trescony

*In Account With CHRISTY AND WISE*

	<i>Cr.</i>	
	<i>Dr.</i>	
May 25 By sale of wool.....		\$18,902.00
Mch 29 Bill Mdn.....	\$ 116.50	
Apr 27 Pd H Escalli.....	1,500.00	
May 2 sent check.....	7,000.00	
" 4 Oft. P Zabala.....	500.00	
" 8 " do.....	500.00	
" 12 " S. E. Ione.....	1,698.00	
" 15 " P Zabala.....	1,000.00	
" 25 " do.....	700.00	
" 25 Int to date.....	127.00	13,141.50
Net Bal due this date.....		\$ 5,760.50
Add Net.....		80.50
		<hr/> \$ 5,841.00

San Francisco, Mch. 19, 1872

*Account Sales of 27 bundles Sheep Skins Sold**For Account of A. Trescony Esq  
Monterey*By CHRISTY AND WISE  
607 Front Street, between Jackson and Pacific

27 Bundles				
675 Sheep Skins @ 50c.....				\$337.50
1 bale Dead Sheep Wool 425 lb. @ 32c.....			136.00	\$473.50
		CHARGES		
Freight per Sch'r A. Adams.....			\$ 5.00	
Drayage.....			1.60	
Commission 2½%.....			11.85	18.45
Net Proceeds.....				<hr/> \$455.05

E.O.E.

CHRISTY AND WISE

San Francisco, April 28, 1891

*Account Sales of 35 Bales Wool sold  
For Account of Mr. J. A. Trescony,  
San Antonio*By CHRISTY AND WISE  
607 Front Street, between Jackson and Pacific

35 Bales Wool.....	10863				
	53	10810	18½	\$1,999.85	
Tags.....		173	5	8.65	
2 Bundles Pelts.....		20	75	15.00	
		10	45	4.50	\$2,028.00
		CHARGES			
Freight per CWT.....			\$ 46.00		
Drayage.....			3.70		
Storage.....			5.55		
Insurance.....			6.05		
Commission 2½%.....			50.70	112.00	
					<hr/> \$1,916.00

## STATISTICAL APPENDIX 2

(See pages 348-49)

### FEEDING SHEEP AT GIBBON, NEBRASKA, 1885-1886

There were 4,600 head mixed sheep shipped from Cheyenne, December 9th, 1885, in 43 cars. Freight on same being \$1,388.90 (\$32.30 per car)—48 died on the way. Number left at Gibbon December 10th, 1885, was 4,552.

Consignee	Number of Sheep	Number of Cars	Date of Shipment to Chicago	Weight	Sold for Average Price Per Cwt.	Freight From Gibbon to Chicago	Yardage, Hay, and Commissions	Net Receipts	Average Net Price Per Head Chicago
Wood Brothers.....	504	5	1886 March 2	( <i>pounds</i> ) 51,030	\$5.25	\$361.80	\$74.07	\$2,243.20	\$4.45
Adams and Burke.....	503	5	" 3	50,790	5.25	369.40	72.66	2,224.41	4.42
Wood Brothers.....	504	5	" 4	47,590	4.71	376.90	74.07	1,788.73	3.54
" "	473	5	" 16	44,030	4.75	363.90	71.59	1,655.93	3.50
" "	619	6	" 17	51,880	4.40	432.25	85.44	1,765.03	2.85
" "	667	6	April 7	51,020	4.39	438.50	93.78	1,707.10	2.55
" "	666	6	" 8	48,510	4.00	441.70	93.62	1,406.33	2.11
" "	352	3 ,	" 12	21,000	1.85	220.95	64.40	104.15	.30
Total.....	4,288	41	.....	365,850	.....	\$3,005.40	\$629.63	\$12,894.88	.....
Death Loss.....	312								
									4,600

(Last 3 cars were "Scalawags")

Cheyenne, Wyoming, 1886

FEEDING SHEEP AT GIBBON, NEBRASKA, 1885-1886 (*Continued*)

Total proceeds from Sale of Sheep.....	\$12,894.88
<b>From J. A. Moore</b>	
10/17/86 1 car oats, onions, etc.....	\$ 169.23
11/13/86 1 car oats, onions, etc.....	171.02
11/20/86 1 car corn.....	78.56
5/12/86 30 hd. hogs.....	154.66
Rec'd for pelts of sheep died at Gibbon.....	117.20
	<hr/>
\$ 690.67	
We have left 1,000 bu. corn @ 16c.....	\$ 160.00
Improvements and Implements at Gibbon, Nebraska, valued at.....	250.00
	<hr/>
	1,100.67
<b>Total credit.....</b>	
Bal. a/c "Feeding Sheep Neb." as per Ledger folio 331.....	\$2,367.91
Bal. a/c "J. A. Moore" (we have honored his drafts) as per L. folio 331.....	4,530.25
	<hr/>
	6,898.16
<b>Net amt. rec'd.....</b>	
Av. price per head on 4552 hd.....	\$1.55
(Av. price per head on 4288 hd., Actual no. of hd. sold).....	1.65

## STATISTICAL APPENDIX 3

(See pages 365-66)

THE BENT-OTERO IMPROVEMENT COMPANY  
STATEMENT OF SHEEP FEEDING—WINTER OF 1899-1900

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1899

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Aug. 15	On hand 800 Ewes and 500 Lambs Invoiced @.....	\$ 3,250.00
Fall	400 Old Ewes bought.....	460.00
Oct.	2,605 Lumberton Lambs @ 3½c per lb., there avg. wt. 56½ lbs.....	5,546.00
	2,359 Archuleta Lambs.....	3,602.03
	2,141 Florsheim Lambs @ 3½c.....	3,746.12
	Freight, Inspection, Commission, Expense Bringing In.....	1,448.00
	Salt and Sulphur.....	125.00
	Bucks.....	45.00
	Interest Paid.....	599.58
	Grain.....	6,455.90
	Labor Feeding.....	1,412.48
	Hay.....	3,518.36
	Use of Feed Lots.....	504.52
	Sundry Items.....	222.17
		<hr/> <b>\$30,935.16</b>

SALES

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Aug. 9	Lambs....\$120.00—Pelts....\$7.30.....	\$ 127.30
Sept.	1,089 Ewes and Lambs Mallory Commission Co. St. Joseph, \$3.30 to \$2.60 per head—Net per head on the lot, \$1.87.....	2,033.85
Nov.	Int. refund, Mallory....\$112.13—Freight refund .....	161.58
1900		
3-7	482 hd. @ \$6.85 K. C. 74 lbs. avg. Net per head \$4.74.....	\$ 2,283.64
3-8	515 hd. @ 6.85 K. C. 75 lbs. avg. Net per head 4.83.....	2,490.29
3-13	501 hd. @ 6.85 K. C. 75 lbs. avg. Net per head 4.95.....	2,481.05
3-14	500 hd. @ 6.85 K. C. 79 lbs. avg. Net per head 5.05.....	2,524.71
3-20	1,111 hd. Mz. @ 6.70 K. C. 70.3 lbs. avg. Net per head 4.38.....	4,862.88
3-23	1,040 hd. Mz. @ 6.80 K. C. 70.5 lbs. avg. Net per head 4.46.....	4,643.57
4-9	540 hd. @ 7.50 Chic. 77.3 lbs. avg. Net per head 5.15.....	2,786.64
4-10	540 hd. @ 7.40 Chic. 76 lbs. avg. Net per head 5.03.....	2,714.57
4-12	549 hd. RF @ 7.25 Chic. 70 lbs. avg. Net per head 4.33.....	2,376.96
5-1	883 hd. @ 6.75 K. C. 71 lbs. avg. Net per head 4.30.....	3,785.35
5-7	468 hd. @ 6.75 K. C. 67.5 lbs. avg. Net per head 4.18.....	1,955.40
	<hr/> 7,129	72.9
		4.61
	Cleanup at Kirkland.....	105.60
	19 head J. B. Colt and Son.....	88.00
	400 Ewes sold Mette of Colorado Springs.....	1,312.50
		<hr/> <b>\$36,733.89</b>
	Gain.....	<b>\$ 5,798.73</b>

PER HEAD RECORD

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Cost of Lambs in Feedlot.....	\$2.02
Hay fed.....	.50
Grain.....	.90
Labor.....	.20
Use of Feedlots.....	.07
Interest.....	.09
Sundries.....	.03
	<hr/>
Total.....	\$3.81
Gain per head.....	.80
	<hr/>
Average selling price.....	\$4.61

## STATISTICAL APPENDIX 4

(See page 413)

## TRENDS IN THE SHIFT FROM LAMB TO MUTTON, 1885-1940\*

Year	Sheep (price per cwt.)	Lambs (price per cwt.)	Margin	Percentage Margin Over Sheep
1885.....	\$3.60	\$4.10	\$0.50	13.9
1890.....	4.75	5.90	1.15	24.2
1895.....	3.30	4.30	1.00	30.3
1900.....	4.55	5.95	1.40	30.8
1905.....	5.05	6.80	1.75	34.6
1910.....	5.25	7.55	2.30	43.8
1915.....	6.30	9.00	2.70	42.9
1920.....	9.30	14.60	5.30	57.0
1925.....	7.80	15.50	7.70	98.7
1930.....	3.90	9.35	5.45	139.7
1935.....	3.65	8.65	5.00	137.0
1940.....	4.00	9.55	5.55	138.8
1945.....	7.15	15.15	8.00	111.9

\* Data from the *Chicago Daily Drovers Journal Yearbook* and some early day market calculations which the *Chicago Daily Drovers Journal* provided additionally, permit the compilation of this table. The growth of the demand for lamb in comparison with mutton as demonstrated in the table provides an obvious reason for the shift in the industry.

## STATISTICAL APPENDIX 5

(See page 414)

## PERCENTAGE LAMBS AND YEARLINGS IN FEDERALLY-INSPECTED SLAUGHTER

1923.....	86.84	1931.....	94.86	1939.....	93.60
1924.....	89.34	1932.....	96.17	1940.....	93.67
1925.....	89.70	1933.....	95.79	1941.....	93.68
1926.....	90.38	1934.....	95.20	1942.....	86.99
1927.....	91.09	1935.....	92.95	1943.....	79.04
1928.....	91.74	1936.....	90.89	1944.....	83.50
1929.....	91.23	1937.....	92.14	1945.....	79.10
1930.....	93.94	1938.....	93.49	1946.....	83.20

## STATISTICAL APPENDIX 6

(See page 429)

## TYPES OF PARTIDO CONTRACTS

In the early eighties Powers reported three types of "sheep taking on shares" in New Mexico based on the method of payment—(1) entirely in sheep, (2) partly in sheep and partly in wool, and (3) wholly in wool. The standard contracts then ran five years and the "lessee" (*partidario*) always returned the same number and class of sheep received at the beginning of the contract. In each case in the following table the owner gave the *partidario* a thousand ewes and thirty rams to start operations.

Method No.	Owner Gets First Year	Owner Gets Second Year	Owner Gets Third Year	Owner Gets Fourth Year	Owner Gets Fifth Year
1.....	0	0	1,000 ewes 30 rams	0	1,000 ewes
2.....	200 wethers 500 fleeces	200 wethers 500 fleeces	200 wethers 500 fleeces	200 wethers 500 fleeces	200 wethers 500 fleeces 1,000 ewes 30 rams
3.....	2,000 lbs. wool	2,000 lbs. wool	2,000 lbs. wool	2,000 lbs. wool	1,000 ewes 2,000 lbs. wool 30 rams

## STATISTICAL APPENDIX 7

(See page 458)

## INSPECTIONS AND DIPPINGS OF SHEEP FOR SCABIES

Fiscal Year	Inspections	Dippings	Fiscal Year	Inspections	Dippings
1900.....	1,801,392	626,838	1923.....	22,796,623	6,714,961
1901.....	7,912,724	1,034,368	1924.....	23,534,002	5,065,572
1902.....	11,186,661	1,017,162	1925.....	24,953,861	4,071,375
1903.....	16,444,370	2,167,002	1926.....	23,391,576	3,176,265
1904.....	40,967,961	9,578,476	1927.....	23,285,546	2,756,512
1905.....	53,680,786	16,873,659	1928.....	22,935,543	3,474,822
1906.....	59,246,288	12,396,976	1929.....	19,655,705	2,704,256
1907.....	62,625,831	12,133,466	1930.....	22,886,382	4,450,111
1908.....	59,471,141	17,589,578	1931.....	21,775,139	3,788,224
1909.....	59,762,512	15,597,823	1932.....	19,703,156	3,058,858
1910.....	52,749,920	12,152,356	1933.....	19,366,650	2,264,555
1911.....	56,584,129	12,715,631	1934.....	17,053,802	1,808,746
1912.....	62,261,020	13,891,648	1935.....	16,295,011	1,490,450
1913.....	59,370,477	12,557,457	1936.....	18,875,261	1,471,248
1914.....	20,639,428	7,517,578	1937.....	14,745,419	1,449,427
1915.....	15,659,624	3,790,967	1938.....	14,767,490	1,235,022
1916.....	19,555,969	6,473,419	1939.....	14,963,409	1,013,389
1917.....	18,645,071	5,539,919	1940.....	13,825,734	1,406,380
1918.....	19,630,126	5,585,543	1941.....	14,073,591	1,497,149
1919.....	22,394,561	10,518,196	1942.....	13,176,458	1,149,562
1920.....	20,371,965	9,515,720	1943.....	11,679,895	677,253
1921.....	22,114,154	8,273,450	1944.....	8,756,041	658,972
1922.....	24,190,956	8,869,386	1945.....	7,637,168	305,103

## Biographical Appendix

(Alphabetically arranged)

ARTHUR G. ANDERSON was born in La Grange, Tennessee, in 1851, and at the age of eight came to Texas with his father, Thomas Gloster Anderson. The Tennessee plantation was sold, and with a large retinue of slaves the family moved to the frontier of west Texas. This involved a long caravan which was drawn by the finest type of Tennessee horses of that day. The family rode in the carriages, and the slaves, furniture, and other supplies were hauled in the typical covered wagons of the period. The procession passed through Dallas, then a settlement of a few houses and several tents, to arrive at a point between Fort McKavett and Menard, where ranching was started. The family and slaves were placed in temporary quarters, but within two years the Civil War was under way and the headquarters and mansion house were never completed. The family moved into San Antonio and New Orleans, where Arthur was educated. His father was appointed financial representative of the Confederacy and spent most of the time in Europe, soliciting interest in breaking the blockade of Confederate ports and expediting the export of cotton from the south. In 1872 Arthur Anderson returned to west Texas, where he continued as a sheepman until his death in 1919.



The ARDIZZI-OLCESE COMPANY at Bakersfield, California, was the outgrowth of the business of a Frenchman, Victor Amy, who moved to Bakersfield in 1873, after having operated a general store in Delano, Kern County, for several years. The following season a Swiss-Italian, Ben Ardizzi, joined him in the partnership of Amy and Ardizzi, and their store became a general headquarters

for sheepmen. Amy died in the mid-eighties. In 1888, Louis V. Olcese started as a clerk in the store and somewhat later (financed by his father) bought a half-interest in the business, which became known as Ardizzi and Olcese. In 1894 Ardizzi died, and his widow's brother, James L. de Pauli, represented the Ardizzi interest, the name being unchanged. During the late nineties the firm bought wool heavily, at high prices, and the subsequent drop in market values forced the firm through bankruptcy. In May, 1902, it was incorporated under the name of the Ardizzi-Olcese Company, with James L. de Pauli as president, and Louis V. Olcese as vice president. Olcese succeeded to the presidency in 1908, following de Pauli's death, and the Company was dissolved after Olcese's death on August 20, 1929.



CHARLES M. BAIR was born near Canton, Ohio, and came west in the early eighties. He was employed as a train conductor by the Northern Pacific. Soon he entered the sheep business and at one time was reported to be the biggest operator in the entire West. For a period of two years after the first World War he tried feeding his own lambs near Humboldt, Iowa, but did not find this type of operation satisfactory. His range flocks were grade Rambouillet, his first rams of this breed being purchased near Heppner, Oregon. When his ewes got too fine and wrinkly he introduced half-bred Romney rams, but he usually classified his ewes into three groups according to size and quality of fleece—using Rambouillet bucks on his large ewes, Columbias on his middle-grade ewes, and half-bred Romneys on his small ewes. He died in February, 1943.

In 1873, DR. D. M. BALDWIN, whose health had broken in California, took up 160 acres on Hay Creek, in Crook County, twenty-five miles north of Prineville and about seventy miles (airline) south and east of The Dalles. Native herbage on the eastern slopes of the foothills of the Cascades was knee-length and most winters were mild and open. Dr. Baldwin established a purebred flock from the choicest Merino blood, two rams and twenty-five ewes of Hammond breeding. One of these rams, "Oregon," proved to be the greatest foundation sire in eastern Oregon. Dr. Baldwin gradually took up more land, and increased the size of the flock after rigorous selection in each generation. In 1883, broken health compelled him to sell his flock to two brothers, Judd P. and Charles Van Houten, experienced Merino men from the Canandaigua Lake region of western New York. They drew on the most popular French, Delaine, and American Merino blood in Ohio, Michigan, New York, Vermont, and California, and built up the flock to over 2,000 ewes of exceptional quality and high shearing. They also purchased several hundred acres of alfalfa hay land, and took over a number of grazing leases. The building of the Columbia Southern Railway to Shaniko, forty miles north, greatly improved their access to the markets.

In 1887 they needed more capital, and organized the Baldwin Sheep and Land Company, with C. M. Cartwright of Portland as president, Judd P. Van Houten as vice president and general manager, and John Summerville as secretary-treasurer. The flock was gradually increased to around 15,000 purebred ewes and separated into three distinct sections by blood—American Merinos, Delaines, and Rambouillet (then called French Merinos). In each breed the 800 best ewes were carried in the flock books of the respective associations, while the balance of each flock was recorded in the private register of the company. Stud rams were produced from the select flocks, and range rams from the main flocks, after rigorous sifting and culling. Usually around 4,000 rams were available for range trade, the majority being sold in Oregon, Idaho, Montana, Wyoming, Colorado, and New Mexico.

When J. G. ("Jack") Edwards of Wyoming and Colorado was at Hay Creek in 1899, purchasing rams, he decided to buy a half interest in the flock and general setup. He became manager in 1900, and in 1904, with his former associate, L. Enderud, purchased

the remaining half. Under his direction the flock was expanded to 40,000 head and attention was concentrated on the Rambouilletts. Colonel Dwight Lincoln of Ohio was commissioned to purchase 100 head of Rambouilletts in France, practically without price restriction, and 94 successfully reached the ranch. These were from the Government Flock at Rambouillet, the Victor Gilbert flock, and the Thirouin-Sourreau flock. In the latter group was the phenomenal ram "Jack the Ripper," champion at the great French National Sheep Show in Paris in 1902. He was described as the nearest to a "Merino Southdown" ever bred to that date. and had a remarkable effect on the Hay Creek flock. The Edwards importation was brought over by the greatest western student of Rambouillet breeding, Will C. Clos. After expanding to 40,000 head, the annual clip totaled about a half million pounds, almost a world's record for the time for as large a flock. The clip usually topped the market, and brought representatives of all eastern and Pacific wool houses to Shaniko at shearing time.

From 1900 to World War I the Baldwin Sheep and Land Company was the largest livestock enterprise in Oregon, and in 1904 had the largest shearing plant, equipped for forty shearers. By 1910 the flock had reached nearly 50,000 head, over 30,000 acres of deeded land were owned, and over 150,000 leased, a total of more than 281 square miles. This took care of feed crops and winter range, but it was necessary to go to the mountains for the summer, and the Forest Service, when established in 1905, adopted a policy of progressive strangulation of this magnificent flock. By 1910 it was no longer possible to get sufficient summer range, so Edwards and Enderud sold the ranch and leases, as well as 20,000 head out of the flock, to a group of Portland capitalists headed by Henry Pittock of the *Portland Oregonian*, and L. B. Menefee. About 1,000 head of the registered flocks were sold to the Butterfield Land and Livestock Company of Weiser, Idaho, and the balance in smaller lots to breeders in almost every state of the Union. Later the ranch and flocks were conveyed to W. V. Sanderson, and in 1937 Fred Wichman of Kauai, in the Hawaiian Islands, purchased it.



A. J. BLAKELY, Sr., was born in Rutland County, Vermont, in 1834. While still a small

boy his father, Daniel Blakely, purchased in Connecticut several Spanish Merino ewes of Atwood breeding and a Spanish Merino ram in New Hampshire from Consul Jarvis. The younger Blakely purchased the flock from the estate when Daniel Blakely died in 1861, but immediately joined the Union Army. In 1863 he returned to his flock to find four thousand pounds of wool accumulated, which he sold for a dollar per pound. In 1868 this "wool money" was used as down payment on 260 acres near Grinnell, Iowa, where he built up a prominent flock from which sheep were sold into twenty-nine states, Hawaii, and South America. In 1913 the flock was taken over by A. J. Blakely, Jr., and is now over a century old in the hands of one family. It has won hundreds of prizes in the show ring, and the ram "Prince" furnished the first prize fleece for the Iowa State Fair in 1923, another fleece that was first prize in 1924, and still another after sale into Ohio that won second place at the Ohio State Fair and first at the West Virginia Fair—an unsurpassed record.



The BOND brothers, GEORGE and FRANK, came to New Mexico in the eighties. Frank Bond was born February 13, 1863, in Argenteuil County, Quebec, Canada. In 1883 he started in the general merchandising business in Espanola, on the Rio Grande, north and west of Santa Fe, keeping his headquarters there for forty-two years. He and his brother operated as partners until George Bond's retirement. Their first flocks consisted of light shearing ewes, more or less native sheep from early Spanish times, and their bucks were Rambouillet rams from Utah, Idaho, and Montana. While they engaged in the sheep business as growers, they also began to deal in sheep in large numbers, selling ewe bands into Colorado, Wyoming, and western Kansas, and wether bands into the feedlots of Nebraska and Kansas. As their business expanded, they established a headquarters office in Albuquerque, from which they serviced their increasing number of supply and general merchandise stores. Gradually Frank Bond took over the office management, the handling of their many partnerships, and the general accounting and control of the business while George Bond handled the range interests, the trading in the field, the wool marketing, and the sheep and lamb contracting.

As a means toward expansion, the Bonds

took various leading sheep men as associates. Some of the well-known associates were Ed Sargent of Chama; T. C. Halley of Scottsbluff; Elmer J. Wagner of Fort Collins and Lamar, Colorado; A. Stuart McArthur of Wagon Mound; Carroll Gunderson of Grant's; Governor R. C. Dillon of Encino; C. A. Baker of Roswell; L. M. Rowe of Espanola; Andy Wiest of Cuervo; L. A. McRae and Walter Connell of Albuquerque; and John Davenport of Espanola. The majority of the supply stores were general merchandise stores and were owned by individual corporations. From most of the New Mexico stores, separate bands were handled by small operators under the *partido* contract system. Some of their *partidarios* operated on credit from those stores and were financed and partially managed through the stores, but the *partidario* was always at liberty to sell and buy where he pleased. At the peak they owned flocks totaling twenty-five thousand head, and between two hundred and three hundred thousand head were traded in annually. The feeding operations in Colorado and Nebraska were begun in the early nineteen hundreds, and reached fifty to sixty thousand head at the peak. Their largest volume of wool sales was around a half million pounds.



GEORGE WILLIAM BOND was born in Boston, June 22, 1811. His father George Bond, was in the general commission business. Whitehall, Bond, and Company sold the goods of woolen manufacturers and supplied the wool out of which such goods were made. When twenty-one, young Bond was admitted into partnership in the firm. The panic of 1837 ruined this business, but in 1838 it was reorganized as George Bond and Sons. Two years later Bond established himself purely as a wool broker, the second man in Boston to do so. More than anyone else in the business, he became interested in investigating the chemical, physical, and biological characteristics of the wool fiber, and studied the wool industry from every angle, including the economic and the historical. He particularly observed the effects of pure and cross breeding, with all available breeds on a Merino foundation. Harvard University conferred its honorary degree of Master of Arts on him in 1874, "in recognition of his public spirit, and of his thorough knowledge of the important industries of wool growing and wool manufacturing," as Presi-

dent Eliot stated. This degree was rarely conferred on a man not a university graduate.

In 1877 Bond published a classic paper on the "Origin of Merino Sheep," based on his investigations, observations, and omnivorous library research. A great contribution to the wool industry was his annual wool circular, first published in 1857, and asserted to be the earliest statistical review of the wool trade in the United States. During the period over which it was issued, it contained a more complete statistical history of wool growing and manufacture than any rival. His statistical experience led to his appointment as Special Agent for the Industry for the compilation of the Tenth Census in 1880. The classifications he developed made the foundation for subsequent census. He died in the late summer of 1892.



**R. BRACKENBURY** was the leading sheep commission agent at the Denver market for many years. Of English parentage, his first experience was with a wool firm at Port Elizabeth, some four hundred miles east of Capetown, South Africa. His first actual handling of sheep was on the open prairie where the fall and winter grass had little or no feed value. Since scab was prevalent, he moved to Wyoming in the Medicine Bow district in the late eighties, and was one of the first to attempt its control by tearing down the sheep sheds on which so many of the Wyoming flockmasters relied to protect their flocks from the storms and cold on the blizzard-swept ranges. Destroying the buildings which harbored tick and scab infection also eliminated a factor which reduced the resistance of the sheep against cold, as they nearly always became overwarm when they crowded into the sheds at night. In the mid-nineties he located at Grand Island, Lincoln, and various other Nebraska points, in connection with the trail movement and sheep feeding.

Brackenbury opened a sheep commission house at the Denver market in 1898, and like the Knollin-Booth house at Kansas City, handled the sheep for practically all firms operating on the Denver market. Two years later, with several associates, he purchased from some Denver banks a well-watered range in southern Colorado, controlling about five hundred square miles of territory, and increased the flock of eighteen thousand ewes to between thirty and thirty-five thou-

sand head. This became the biggest sheep ranch in Colorado and the lambs and yearling wethers of their own raising were fattened there. He also ran a dipping plant about this time and sorted off the first car-load of pulp-fed ewes from the feedlots of the Loveland sugar factory in the late winter of 1901-2. The great demand for improved rams led him into that business and he annually sold hundreds, and some years thousands, of rams. During Taft's presidency he furnished a report on the costs of range sheep raising to the United States Tariff Commission. He was the only sheepman up to that time to serve as President of the Denver Livestock Exchange, and was a popular judge at sheep shows. One of his principal activities was in financing sheepmen and discounting their notes at both western and eastern banks.



**IRA HOWARD BUTTERFIELD** was born in Macomb County, Michigan, in 1840, was raised on a farm, and after attending country school was educated at Westfield Academy in New York and at Michigan State Normal School. In 1860 he, with several companions, drove a herd of cattle and sheep overland to California to supply the demand for improved blood in that state. As a farmer he specialized in Merino sheep and Holstein cattle. In 1881 he was made a member of the Executive Committee of the Michigan Agricultural Society; Secretary 1891-95; Vice President, 1895-98; President, 1899; Secretary, 1900-1910. As Secretary his chief duty was to manage and conduct the annual state fair. From 1910 to 1924 he was Secretary of the Connecticut State Fair. In 1899 he was made a member of the Michigan State Board of Agriculture and was Secretary, 1893-99. He was secretary of various state livestock associations, including the Shorthorn Breeders' Association, and was Vice President of the Michigan Livestock Association throughout the early nineties. In 1926 the Michigan State College published an important historical document by Butterfield, *The Introduction of Improved Breeds of Livestock in Michigan*, the source of some information used in this volume. He died in 1928.



**COLONEL MANUEL CHAVES, *el Leoncito*** (the little lion), was one of New Mexico's greatest heroes. Born in Atrisco (across the Rio Grande from Albuquerque) in 1818,

he was reared in the outpost of Cebolleta on the eastern slopes of Mount San Mateo (modern Mount Taylor), where he became an expert Indian fighter while still a boy. Chaves enrolled the hundred volunteers who arrested the Texan Santa Fe expedition at Anton Chico, and commanded a thousand volunteers to resist General Kearney. Governor Armijo feared these volunteers so much politically that he ordered them disbanded. Later Chaves fought with Colonel St. Vrain to avenge the Taos massacre of 1847 and the murder of Governor Bent. He commanded a regiment of volunteers in the six months Ute campaign of 1855 so successfully that he was decorated by the War Department for distinguished bravery.

In the Civil War Chaves participated in 1861 in the battle of Vel Verde against the Confederates under Sibley, and although the Union forces were defeated, drove off General Sibley's livestock and supplies, immobilizing the Southern forces until Colonel Chivington could arrive with his Colorado volunteers. Contact was made with the Confederates at Glorieta Pass and they were defeated at Cañoncito—finally driven back to Texas. Chaves was second in command to Kit Carson in 1868 when the Navajos were defeated and placed on a reservation at Bosque Redondo in New Mexico. He was in more than a hundred battles and carried a scar for each. He was the leading breeder of horses in New Mexico and one of the large sheep operators. Chaves died on his ranch near San Mateo in 1892, the ranch now occupied by Floyd W. Lee, President of the New Mexico Wool Growers.



THOMAS and JOHN COSGRIFF came from Burlington, Vermont, to Colorado in the seventies, where they operated a freight line into Denver. They invested all of their spare earnings in sheep, which they sent up to Fort Steele, Wyoming, in charge of their trusty Mexican foreman, Adriano Apadaca. By 1885 they had accumulated two good sized bands of ewes and moved their headquarters to Rawlins. Their flocks ranged from Rawlins to Copperton to Encampment, and increased rapidly until they regularly averaged 125,000 head in number. In 1890 they were joined by their younger brother, James E. Cosgriff. The chain stores which they developed from their commissaries totaled between forty and fifty in number. They were also pioneer chain bank operators, first

purchasing the Commercial National Bank of Salt Lake City. At the height of their career they operated twenty-seven banks in the sheep country, in an area bounded by their institutions at Caldwell, St. Anthony, and Rexburg, Idaho; Sheridan and Cheyenne, Wyoming; and Denver and Monte Vista, Colorado. In the Southern Wyoming sheep country they owned banks at Rawlins, Laramie, and Encampment. The partnership was broken up in 1910 and the two elder brothers both passed away before the American entrance into World War I.



CHARLES COYLE (now of W. R. Smith and Company, sheep commission merchants, Omaha) trailed through Star Valley in 1897. As a boy of eighteen he started driving east from Oregon in 1896, and continued for four years, staying out west one season. In 1896 and 1897 he drove for Gibson and Guthrie of Clark's, Nebraska. In 1898 and 1900, he drove for A. J. Knollin, while in 1899 he handled thirty thousand ewes and fifteen thousand wethers on the Owyhee Desert for Knollin. On his second trip he drove from Prineville. From this city "we kept pretty well on top of the mountains . . . and, as far as I know, I was the only one who went right through Izee with sheep, as it was a cattle country and I know a good many of the outfits went around south." (Letter from Coyle, September 4, 1941.) As he was going into the Izee country, some unseen rifleman shot at him and the sheriff came down to urge him to go around. After some discussion, he brought a posse of cowboys who helped him drive through the country, (about twenty miles) in one day, and then showed him where he could water and rest his flock safely for a day. Regardless of the route around Izee, the trails converged and "they all went through Barren Valley just north of Seneca. . . . There was quite a little variation in the trails after leaving there . . . some of the outfits going as far south as Drewsey and Juntura; but we struck the Malheur just above Harper and trailed within a few miles of Vale, and then cut across to the Snake at Nyssa." From here he followed the regular route to Eagle Rock and up Willow Creek. Thereafter he crossed to Cherub Springs, Star Valley, and over onto La Barge Creek. Across Wyoming he followed the North Platte beyond Fort Laramie, entered Pumpkin Seed Valley, and drove to Sidney and the Union Pacific Railway.

ALEXANDER J. CUNNINGHAM was born at Wiscasset, Maine, April 5, 1861, and died in Santa Fe, New Mexico, June 18, 1942. He came to Douglas, Wyoming, in June, 1886, and entered the employ of C. H. King and Company who were operating a general mercantile establishment. After he had a little experience, King arranged for him to operate a small store that the Company opened at Orin Junction, Wyoming. When Casper was started he was sent there to take charge of the King mercantile interests, as well as a small bank that King established in connection with his general store. In the meantime, Cunningham and DeForest Richards became partners in King and Company. Early in the nineties King sold his interest in the Casper properties to Cunningham, and Cunningham and Richards continued to operate the store and bank. In 1902, Richards and Cunningham took out a charter for the Casper National Bank, and well-known wool growers of Casper—Pat Sullivan, B. B. Brooks, P. C. Nicolaysen, Robert Taylor, and Kenneth MacDonald—became stockholders, the first three also being directors. A few years later Cunningham opened banks at Shoshoni and Riverton where he handled sheep and livestock loans in addition to those made through the Casper bank. In 1892 the Cunningham-Nicolaysen Sheep Company was organized. Both were strong Democrats and looked for great prosperity for the livestock business. But wool sold for five cents a pound, and "we learned that free trade and free Australian wool did not mix well with prosperity in the livestock business." In 1895 Nicolaysen withdrew from the partnership, and a Boston wool buyer, C. M. Caverly, became interested in his place. Cunningham owned several ranches, but the principal one was in Johnson County, out of Kaycee, and was known as the Bar C Ranch.



CHARLES CUNNINGHAM was an Irishman who came to Oregon in 1863. In the early eighties he started a flock of sheep in the Pilot Rock country, running in the Birch and Bitter Creek valleys. His first bucks were imported directly from the Government Flock at Rambouillet in France and were mated to ewes trailed up from California. At the peak he had about 20,000 head—ewes, wethers, and rams. His purebred flock was established in the early nineties.

Title to 50,000 acres of patented land was ultimately obtained, but all except winter grazing occurred on public lands. In 1905 he sold out to three men, Newton Burgess, James Keeney, and Manuel Pedro, who incorporated the Cunningham Sheep and Land Company. Pedro was the active manager of the business long before Cunningham sold out. In 1920 the Company was purchased by Fred W. Falconer who ran it until 1936, when it was sold to Donald Cameron and Mac Hoke. The latter had been president of the Oregon Wool Growers' Association for several years. The business is now handled by two corporations—the Cunningham Sheep and Land Company owning the real estate and the Cunningham Sheep Company owning the flocks and other livestock.



J. P. CURRY came to Colorado in 1875, settling north of Byers. In 1878 he went to Oregon, and trailed a string of yearling wethers, selling them at Fort Morgan. His profit from this operation established him in the sheep business. In 1880 pastures in Colorado dried up and he drove his band of ewes and lambs to Hays, Kansas, where he wintered his ewes and fattened his lambs. In another year before moving to Fort Morgan, he fattened two thousand head at Red Cloud, Nebraska, trailing them from near Byers to the latter point. He ultimately became one of the most successful feeders in the state.



SENATOR WILLIAM A. DRAKE was born on Lake Cayuga in New York, March 4, 1853, and was taken to Polk County, Iowa, at four years of age. He was educated in Des Moines, Iowa, graduating from the Baptist University located there. He taught school for a few years in Iowa and Oregon, but came to Fort Collins in 1882, when only 300 acres of alfalfa were growing in Larimer County. Starting modestly, he bought 80 acres of partly improved land, paid for it in four years, and then bought an adjoining 80. Three years sufficed to pay for this, and he bought another contiguous 80 to give him 240 acres in one block. During his years in the Colorado Legislature, Senator Drake's influence in behalf of the industry was very great. He was the leader of the lamb feeders in the district and remained in the business

longer than most of his contemporaries, maintaining a more even operation throughout. In later years, Senator Drake contracted diabetes, and although offered the nomination for Governor at a time when nomination insured election, he declined because of his failing health. While loading lambs at Greeley, he dropped through a manhole into the car, skinning his legs so badly they would not heal and provoking his death December 9, 1923. At his peak, he handled 135,000 lambs annually.



The EDWARDS BROTHERS were probably the most colorful of early Wyoming operators. Of Welsh birth, they were skilled sheepmen, possessed of the knowledge of the value of good blood and the economies of mass operation. "Griff" Edwards was a large man of athletic build, while "Jack" was smaller and more wiry. Both were utterly fearless in the days when the Colorado cattlemen and the Wyoming sheepmen were contesting for the northwestern Colorado summer ranges. The *Cheyenne Daily Leader* of August 5, 1882, quoted the *Sweetwater Gazette* as reporting the arrival in Rock Springs of the California sheep shearers who had been working for three weeks at "Griff" Edwards' ranch, shearing 4,800 head that averaged 6½ pounds per fleece. "His flock is entirely free from live disease and these shearers informed us they never saw such a large band of sheep so free from scab." The wool was hauled to Green River for shipment while twelve hundred wethers were trailed to Cheyenne, fattening en route, and then shipped to Chicago. In 1883 they brought New Mexican sheep to the Brown's Hole country in Sweetwater County, and laid the foundation of bands that totaled fifty to sixty thousand head at the peak. They were remarkable sheepmen from a technical standpoint and in 1888 made a shipment of three-year-old wethers off the range that averaged 135 pounds at the market. In 1900 they sold out, and "Jack" Edwards went to Oregon as manager and later owner of the Hay Creek Ranch already mentioned. John G. Edwards was born July 13, 1855, and came to the United States in 1872. He moved to a home in Portland in 1910, and died there October 27, 1945. After he was seventy years of age he became interested in art, painting many highly creditable landscapes and portraits.

The FARR BROTHERS—William H., Walter J., Charles H. and Thomas E.—came west before 1880. They were of Canadian birth, originating near St. Thomas, Ontario. In 1877, William H. Farr settled in Greeley, entering partnership in a blacksmith shop with Captain A. J. Taylor, shortly after his arrival. In 1879, only the lack of funds prevented his accompanying the ill-fated Meeker Expedition to the White River Indian Agency in western Colorado, which ended in the massacre of Nathan Meeker and a number of others. Farr went by railroad with a party as far as Rawlins, Wyoming, but fortunately lacked the cash to buy a pony on which to ride to the Agency. Nathan Meeker had desired his services as a blacksmith at the Agency, but evidently not to a degree warranting him to advance Farr sufficient money for the pony. During the early eighties, W. H. Farr, with two of his brothers, Walter J. and Charles H., was a member of a group of six who drove overland with six horses and a Studebaker wagon from Greeley to Boise, Idaho, and worked for a time on the construction of the Oregon Short Line. In the winter of 1881 he visited Canada and brought back his wife, Jennie D. Wilson, to settle permanently in Greeley January 20, 1882. In 1878 he had homesteaded a farm near Greeley one-half mile south of Inspiration Point, which is still in his family. In 1891 he entered the produce business in partnership with H. B. Jackson, father of Charles M. Jackson, Greeley banker and lamb feeder. His first carload of potatoes was shipped to a produce and fruit broker in Denver by the name of Donaldson. W. H. Farr died suddenly at the Greeley Hospital September 27, 1932, aged 77 years, 1 month, 6 days.



COLONEL T. C. FROST of San Antonio founded the Frost National Bank. In a letter to the author, July 16, 1941, his son, L. H. Frost, wrote: "As a child (in the eighties) I remember very well playing in the large warehouses which were owned by my father, and which I can remember as being filled with sacks of wool. . . . A small yellow-backed memorandum book which was gotten out by him during the days when he was in the wool commission business . . . (stated) that he had handled more wool than any other wool commission representative in the United States. . . . During the

period that he was handling wool, he made considerable financial advances to growers which resulted in his handling their clips. . . . I do not know on just what basis these advances were made; i.e., whether they were made on an open account or . . . by note or chattel mortgage. . . . After sales were made by him, a number of the growers were accustomed to leave on deposit with him some of the proceeds of these sales and . . . they would gradually draw against these deposits during the period between sales. From this practice . . . was developed the nucleus of the present Frost National Bank, and I remember as a boy a small office in the back of a merchandise store which he operated, with a window over which was marked the one word 'Bank.'"



**JEAN BAPTISTE GILBERT**, father of Victor Gilbert, obtained a private flock descended from the Paular Merinos originally given by the Queen of Spain to the King of France in 1786. Half of the gift flock was placed on the royal estate at Rambouillet; the other half was put in the hands of a private farmer who was a personal friend of the King. On the death of this farmer most of the flock passed into the hands of M. Gilbert, who transferred it to his high-walled farm of three hundred acres near Grignot, three miles from Versailles. Here Gilbert bred sheep that were considered by most authorities to equal or even excel the Government flock at Rambouillet. Jewett purchased all the ewes that Gilbert had on sale in 1851, and contracted all that Gilbert could spare that were suitable for breeding during the three following seasons, at two hundred francs per head. He made similar arrangements with two other flocks, the only private flocks of note in France at that time. These were sent to Vermont in twenty-three shipments, and cost over sixty-five thousand dollars.



**MARTIN GRANDE** was born near Trondheim, Norway, August 17, 1844. At the age of twenty-two he contracted the "America fever" and with his brother Anton set sail for America aboard a small sailboat which in 1866 was the only direct connection for Norway with the American continent. After a voyage of six weeks he landed at Quebec and from there the two brothers bought tickets to Brownsville, Minnesota, the

destination of some other immigrants on their ship. The brothers then walked to a settlement two hundred miles west where they worked during harvest. Martin took two head of cattle in payment for his work and after selling them went to Wyoming. For about ten years he worked in the coal beds of Wyoming and at the sawmills near Helena (where he cut cordwood for Fort Logan), then on ranches in the Sun River country. On the side he dug for gold in Thompson Gulch and at Willow Creek, or hunted game on both forks of the Musselshell River. His sheep operations began in the spring of 1877.



**PATRICK HEALY**, of the sheep firm of HEALY and PATTERSON, was born in 1846 near Kenmore, County Kerry, Ireland. When fourteen years old he came to Hancock, Michigan, with his father and mother but decided to go west at the close of the Civil War to work with the construction force on the Union Pacific crossing Wyoming and Utah. When the Golden Spike was driven at Promontory Point he had just turned of age, so applied for a job as locomotive engineer. For several years he worked on the Central Pacific running westward out of Ogden. In 1880 he started in the sheep business, forming a partnership with his brother-in-law, Adam Patterson. Patterson's parents had emigrated to this country from Scotland during the Civil War, and Patterson married Healy's sister. The partnership continued until 1904. About the mid-eighties the firm started buying flocks in Oregon each spring and trailing them in bands of five to nine thousand head, usually ending up in the Soda Springs country of Idaho where the sheep were summered. In the fall, part of the animals would be sold in that district and the remainder trailed to the Red Desert in Wyoming. Here a portion of this remainder would be sold and the rest wintered on the Red Desert. The following spring they would continue to Buffalo where a permanent outfit was established. The first attempt to enter this neighborhood was just after the Johnson County War and the flock was established while feeling was running high between the settlers and the cattle owners. During the summer of 1897 Healy and Patterson had over a hundred thousand sheep on hand including the trail bands.

In the early nineties the firm purchased

the Ross outfit at Mountain City, on the South Fork of the Owyhee River at the southeast corner of the Duck River Indian Reservation along the Idaho-Nevada line. Here they maintained a flock of thirty or forty thousand sheep. This made a valuable base from which to move their flocks forward to Soda Springs and thence on to their Wyoming routine. Healy never liked to own real estate, and when an area became crowded he usually sold out, as exemplified in his disposal of the Mountain City property to A. J. Knollin in the late nineties. Individually, Healy had several partners in Nevada, Utah, and Idaho, the best known being O. F. Bacon of Boise. Under these partnerships, the partner did the range work and Healy provided the financing and general supervision. The Healy and Patterson partnership was one of the largest sheep operations in the West—yet it never kept a book or an account. When livestock had to be divided, or any property settlement made, the animals or the real estate would be divided by agreement into as equal portions as possible and the partners would play a game of cards to determine which received which group. "Patsy" Healy was also interested in a bank in Ogden which financed many Idaho, Nevada, and northern Utah sheepmen, many of whom had worked for him, saved their money, and then started in the business with the backing of Healy's bank. He died in 1918.



FRANKLIN HERSHY was born at Sporting Hill, Lancaster County, Pennsylvania, January 1, 1844, and died in Omaha, May 28, 1916. As a boy, under his father, he bought livestock in western Pennsylvania and trailed it over the mountains to Tennessee. In 1881, he went to Chicago to enter the livestock commission business. In 1887, E. Boettcher, also of Pennsylvania and of Chicago, joined him as a partner in the commission and sheep business. During this partnership they started driving sheep from eastern Oregon and western Idaho, feeding at Gibbon, Nebraska, and they operated together until 1898, trailing large bands eastward each year. From that time until 1915 he shipped his feeders east by rail, disposing of his ranches that year to K. E. Kirk and the K. O. R. Land Company. A man of unlimited energy, he rode from band to band of his sheep on the trail, driving in a buckboard drawn by a span of tough road

horses, carrying his own camp and cooking utensils and making his bed on the desert or in the mountains where night overtook him. During the trail period he drove in the vicinity of two hundred thousand sheep, and shipped more than twice that number after he stopped trailing. Hershey's life spanned the romantic period of sheep history. He saw the close of the eastern drives to the butchers of Philadelphia, Lancaster, and Baltimore; he participated in the shift of the business from the East to the West, and he was one of the large operators on the trail from Oregon during its most spectacular years. He played no small role in developing the great central sheep markets and the sheep-feeding industry of the irrigated regions.



T. B. HORD was born on a farm in Marion County, Ohio, in 1850. He attended country school until he was strong enough to work on the farm, but after twelve years of age his schooling was limited to two or three months a year, confined to the winter season. He earned his first money by cutting cord wood, and from the savings thus built up, he took a twelve weeks' course at the Iron City Commercial College in Pittsburgh. His first business venture was renting an Ohio farm. The proceeds of his first few crops were invested in a small flock of sheep, and on this experience his later success as a stock feeder was founded. In 1880, Hord moved to Wyoming, where he purchased an interest in a herd of a thousand cattle. By 1886 this herd had been increased to eight thousand head, but during the severe winter that followed, half the herd was lost. He continued in the range business until 1899, when he disposed of his Wyoming interests. His first feeding venture was begun in 1884 when he brought 235 cattle from his Wyoming ranch to Central City, Nebraska. T. B. Hord afforded the greatest single market for grain and hay in the Central West. Annually such enormous quantities as ten thousand tons of hay and a million bushels of corn were fed in his yards. Of this amount, only half the hay and seventy-five thousand bushels of corn were produced by him, the remainder having to be purchased. His demands made a lucrative business for several grain dealers and elevator operators, but they made the mistake of trying to crowd prices on him too concertedly. He therefore obtained capital,

not only to buy them out, but to obtain two strings of elevators across eastern Nebraska and Iowa along the Union Pacific, Chicago and Northwestern, and the Burlington railroads.



A. MCC. HOWARD, Mrs. Philbrick's father, and A. D. HOWARD, her uncle, were in the sheep business in eastern Oregon but in the summer of 1883 started for Montana with eleven thousand head. They wintered and lambed at Bozeman, and on June 1, 1884, started to drive down the Yellowstone with trail equipment consisting of several heavy wagons to carry "grub," cooking utensils, tents, beds, etc., and about ten men to handle the outfit. They covered only four miles a day due to the young lambs—breaking camp before four A.M., "nooning" about ten A.M., and then starting out about four P.M. to graze until the sheep would bed down. Grass was unusually good that summer and they did not reach Forsyth until September 18. There the sheep were ferried to the south side of the Yellowstone, and they used four or five days to reach the location A. D. Howard had selected twelve miles south of the mouth of the Rosebud.



JAMES MILTON HOWELL and THOMAS NEWTON HOWELL were brothers who came to California from Missouri. "Jim" was best known on the west end of the trail in California, while "Newt" was the more prominent in the Wyoming and Montana end of the business. It is estimated that they sent between 175,000 and 200,000 head east in the two decades of their greatest prominence. James Howell was born in Warren County, Missouri, February 15, 1842, and died in Red Bluff, California, October 24, 1932. Their father having died when they were small, James decided at the age of seventeen to make the long trip to California. He obtained employment as a bullwhacker, and drove an ox-team in a train captained by Si Hornet that averaged ten miles daily all the way from Missouri to the Golden State. The caravan of a hundred wagons reached the Honey Lake Valley in September, 1859, and young Howell left Hornet's employ with a dollar in his pocket. He got a job on Michigan Bar where he earned eight dollars per month and keep, but in 1860 he turned to herding sheep in

Amador County. This proved unsatisfactory so he returned to Michigan Bar in 1861, and earned enough money to get into the sheep business in 1862 on a partnership basis with G. W. Kingsley. He received herder's wages of thirty dollars a month also. The hard wet winter of 1862 shrunk the band from twelve hundred to four hundred head, and they drove to Tehama County. Here the sheep had to be branded, and he performed what he afterwards stated was the "hardest" job of his life, wrangling and holding each sheep singly while some one else applied the brand by hand. Thereafter he was never out of the sheep business, and still owned a hundred head of fine registered Merino ewes, when he died at ninety years of age.



DAVID HUMPHREYS, (1752–1818), received his inspiration for quality sheep from George Washington. During the latter part of the Revolution he served as a lieutenant colonel, aide-de-camp to General Washington. After the War he lived at Mount Vernon for some time in the General's family. In 1784 he was secretary of a legation headed by Thomas Jefferson to negotiate treaties of amity and commerce with various European powers. In 1790 he was appointed first United States Minister to Portugal, where he served until 1797 when he was transferred to the Spanish Court in Madrid as Minister Plenipotentiary. Here he served until 1802. The Spanish grandees, who owned the pure flocks of the country, resided in Madrid and Colonel Humphreys took advantage of the opportunity to absorb much Merino lore. In 1802 he succeeded in importing a hundred head, through special dispensation from the Spanish Crown, and wrote a "Dissertation on the Merino Breed of Sheep" on August 25 of that year for the Massachusetts Society for Promoting Agriculture. These sheep were *transhumantes*, probably Infandados, and were the foundation stock on which the flocks that became American Merinos were based.



JOEL J. HURT was one of the most prominent of Wyoming's early sheep operators. In 1865 he was made a guard at Fort Halleck for the Holladay Overland Express, and underwent several adventurous experiences with Indians in this capacity. He

operated along the Union Pacific until 1888, when he drove a band of three thousand sheep into Natrona County in the central part of the state. He established headquarters on Salt Creek in the northeastern part of Natrona County. Gradually he transferred most of his interests into the Casper country, where he operated until 1893. Hurt was best known for his experiments in crossing Dorset rams on range flocks, in an attempt to advance the breeding season and to increase the number of twin births. He was unsuccessful in this attempt, but he did succeed in improving the percentage of lambs raised (at a time when 75 to 80 per cent of lambs born was considered a top crop) by transferring one of a pair of twins to wet ewes with stillborn lambs.



PETER JANSEN was born in late 1851 in Berjansk, Russia, by the Sea of Azov, in a region especially set aside for Germans of the Mennonite faith. His boyhood was spent with these peaceful people—frugal and industrious, but stern and severe in the up-bringing and training of their children. The spring Peter was twenty-one, his father, Cornelius Jansen, criticized the Czarist government for encroaching on the rights of the Mennonites. Soon a government official appeared with a ukase ordering the senior Jansen to dispose of his property, leave his home, and say farewell to his friends in one week's time. Through the intercession of Chancellor Bismarck, the time was extended to two months, so on May 26, 1873, the Jansens with several of their Mennonite associates started for Germany by rail and steamship, under the protection of the British Consul. Early that fall they reached Berlin, Ontario, Canada, but soon moved on to Nebraska. Peter Jansen attained a fine mental maturity through his early struggles with the Nebraska sod. In 1900, President McKinley appointed him one of the United States Commissioners to the Paris Exposition. Abstemious, but never fanatic, he once said during the prohibition agitation of 1917–18, "A man is a fool who drinks whiskey before he is forty, but he is more or less of a damn fool if he does not take a drink of whiskey, more especially good whiskey, *after* he is forty." Just before this time, he was invited to visit Western Canada to straighten out the Dukhobors, an unruly set of Mennonites at odds with the Dominion Govern-

ment. During this visit, he began buying Canadian land and then purchased a string of elevators stretching westward from Winnipeg. Other adventures followed until the post-World War I depression wiped him out financially. He died June 6, 1923.



CONSUL WILLIAM JARVIS was born in Boston, February 4, 1770. Although his father was a distinguished physician and surgeon, young Jarvis was educated as a merchant. Following a brief but successful career in this field, he took a half interest in a merchant vessel as captain and supercargo. In February, 1802, he was appointed consul at Lisbon and acting chargé for Portugal. He is credited with securing the immense neutral trade of the Peninsula during this phase of the Napoleonic wars, but his greatest service lay in his perception of the opportunity to get Merino sheep for the United States and his energy in handling such imports. His example in purchasing so many of the best sheep in Spain for export to this country, for others as well as himself, was a great incentive to trade.



FRANK S. KING arrived in Wyoming from England in 1883, H. J. (BERT) KING in 1887, and J. H. (JOE) KING in 1890. Until Joe arrived the usual commercial operation was followed, but from 1890 forward purebred sheep were handled. The prime early move toward success lay in the purchase of the champion French Merino ram at the Chicago World's Fair of 1893, while strong infusions of von Homeyer Merinos were secured from the flocks imported by W. G. Markham of New York, last eastern secretary of the National Wool Growers. From the inception of the International Live Stock Exposition at Chicago until the end of the thirties, King Brothers won more important championships in Rambouillet than any other breeder and ranked at the top with Corriedales. The brothers incorporated as the F. S. King Brothers' Company, with a capital stock of \$100,000 in 1904.



A. J. KNOLLIN was born in New York state, of Irish descent, and came west in the early eighties. He operated a small veal and mutton company in Kansas City, buying,

slaughtering and selling to local butchers. About 1887 he began acting as a buyer, first in Kansas City and then in Chicago for Swift and Company. In 1893, he started a sheep commission business in Kansas City with a partner, under the firm name of Knollin and Booth. In this connection he handled a growing sheep business, as many of the Kansas City cattle and hog salesmen were uninterested in pushing their sheep sales, and turned over their consignments to Knollin and Booth. Soon Knollin began numerous trips west, contracting feeder sheep for various feedlot men in Missouri, Kansas, and Nebraska. Most of these sheep were bought in Idaho and were trailed eastward. His success in this phase of the business drew the backing of Edward F. Swift, the meat packer, and from 1896 onward their partnership did the biggest all-round sheep business ever recorded. They handled 65,000 to 75,000 ewes on the range in Idaho, Oregon, Utah, and New Mexico. In addition, they finished at least 160,000 wethers in Kansas and Nebraska. Also they dealt in sheep each year, selling to other feeders as well as for slaughter. The number reached a quarter of a million annually from 1898 to 1903. Feedlots were operated in Nebraska, at Grand Island, Norfolk, Schuyler, Columbus, Shelton, Endicott, and Belvedere; and in Kansas at St. Mary's, Hutchinson, Solomon, Rossville, Stafford, Eldorado, and Marysville.

While Knollin did some buying of trail sheep in western Idaho and eastern Oregon in the earlier years, he soon made most of his purchases in the Soda Springs country. In 1896 he trailed about sixty-five thousand sheep, in 1897 he and Harry Black purchased and gathered up eighty-four thousand head which were trailed to Ontario, Oregon, the fat end sorted off and shipped to Tennessee Pass in Colorado, the rest trailed across Idaho and Wyoming into Colorado, where they were distributed through the feedlots in Nebraska and Kansas. In 1898, Knollin operated in Logan Valley, Oregon, and turned sixty-three thousand over to Charlie Coyle. He shipped fifteen thousand two-year-old wethers east, loading at Huntington; sent fifteen thousand yearling wethers back to the Blue Mountains to mature; sent fifteen thousand two-year-old ewes, thirty thousand yearling ewes, and fifteen thousand wethers onto the Owyhee Desert. The next year the wethers were trailed to Soda Springs and 90 per cent were fat as delivered.

Knollin's organization was of top calibre. W. A. (Pete) Leith was his trail manager, beginning with him in 1894. Knollin continued as a wool grower in Utah and Idaho through World War I and shipped hundreds of purebred rams to the Northwest. In 1919-21 he operated a sheep commission company in Chicago. The great price break of 1921 nearly ruined him financially, but with great courage he kept fighting, and was soon operating flocks from his home in Soda Springs, Idaho. For a few years he had Shropshires and Hampshires with H. G. Finch, but in 1932 sold out to his partner and confined his efforts to his commercial interests.



**LARABIE BROTHERS**, bankers of Deer Lodge, originated in the banking firm of Donnell, Clark, and Larabie, which started business in an adobe structure at the corner of Main Street and Cottonwood Avenue in the old town of Deer Lodge in 1879. Robert W. Donnell was a native of North Carolina who had been in business in both St. Joseph and St. Louis, Missouri, and who went to Montana in the early sixties to engage in the mercantile business in Virginia City and Helena, later establishing a branch at Deer Lodge. S. E. Larabie came to his house in a clerical capacity in 1866. Larabie had been born in Portersville, N. Y., but the family moved to Omro, Wisconsin. In April, 1864, when eighteen years of age, he crossed the plains to Montana by ox team.

In 1868 Donnell removed to New York City, leaving his affairs in the West entirely in the hands of his young associates. In 1869 Donnell, Clark, and Larabie sold their mercantile business to devote themselves to banking, and they handled most of the business involved from the gold production of 1862-69 which totaled nearly twenty million dollars. In 1872 they became a national bank with a capital of one hundred thousand dollars, W. A. Clark being president and S. E. Larabie, cashier. In 1877 a branch banking house was established in Butte and in the mid-eighties Clark took over the Butte business. Larabie remained at the head of the business in Deer Lodge.

C. X. Larrabee came to Montana in 1874 and prospected around Butte, where he discovered the Mountain View Mine which was sold to the Boston Montana Company for a million and a quarter dollars. He then joined actively in the management of the

banking business at Deer Lodge. The difference in the spelling of the two names was due to the fact that the original spelling was too much for pioneer Montana miners and stockmen and S. E. Larabie permitted the spelling of his name to be changed so that it was more nearly phonetic.

Both brothers were actively interested in livestock—sheep, cattle, and horses. The method which the bank used in financing customers was to back any man of sterling character all the way. Usually part of the loan would be paid in June at shearing time and the remainder would be paid in the fall when the lambs were sold. Later on, the livestock growers would come back to the bank to borrow funds to carry them through the winter, with additions in the spring for lambing operations. In many instances a good risk was handed a checkbook and permitted to buy a flock or two of sheep, provided he had the necessary summer ranch and winter hay to carry him through. The bank never lost any money on this type of loan. Several sheep operators of foreign blood, who had difficulty with the English language, were backed by the Larabies and their descendants still preserve grateful feelings to this banking institution for the interest and consideration the founders of their families received. Many of the livestock men financed by the Larabies became wealthy later in life.



ANDREW J. LITTLE was born in 1871 in Moffatt, Scotland, and came to Idaho in 1893, where he took his first position as sheep herder with Robert L. Aikman, some fifteen miles from Caldwell. He gradually became interested in the Emmett Valley and by 1933 owned and operated thirty ranches there. He raised grain and hay on these ranches to feed his sheep and at times employed as many as four hundred men. At that time he was running about seventy-five thousand ewes, but at the peak in the late twenties he was reported to have run between eighty and a hundred thousand, after the purchase of the Van Duzer bands of forty thousand head in 1927. His summer ranges lay well north of Emmett in the Boise Lakes region. In 1936 he marketed 640,000 pounds of wool and sixty-six thousand lambs of his own production. Shearing operations lasted from mid-April to mid-May and he employed a crew (including shearers, wranglers, and extra hands) of eighty men.

The bulk of his wool graded half to three-eighths blood, and for over twenty years William Ackroyd of Boston (trained in Bradford, England, and for thirty years on the Boston wool market) came west to do the grading. Little's ewe bands were largely Lincoln-Rambouillet crossbreds, to which were mated Hampshire and Suffolk rams after 1910. He raised most of his breeding stock but purchased his rams from the Butterfield Sheep Company of Weiser. Little participated in the final dispersal of the latter's flock. He died in 1941.



ROBERT R. LIVINGSTON, (1746-1813), was one of the drafters of the Declaration of Independence. Admitted to the bar in 1773, he became a member of the second, third, and fourth Provincial Congresses of New York. Twice he was delegate from that state to the Continental Congress. Livingston was the first Chancellor of New York, serving from 1777 to 1801, and in this capacity he administered the oath of office to George Washington when he was first inaugurated as president. In 1801, Thomas Jefferson appointed him Minister to France, where in association with James Monroe, he arranged the details of the Louisiana Purchase in 1803. The next year he retired to private life, devoting his attention to the improvement of Agriculture. He introduced his first French Merinos in 1802, while in 1809 the New York State Legislature ordered the publication of his famous "Essay on Sheep," prepared for the Society for the Promotion of Useful Arts. While in Paris he became acquainted with Robert Fulton, and in 1807 they operated on the Hudson the first commercial steamship in the world, named the Clermont for Livingston's agricultural estate.



J. B. LONG came to Montana from Sycamore, Illinois, although he was born in Beatrice, Nebraska. His first contact with the sheep industry of the state was as a commission man and sheep buyer, operating out of a railroad caboose, from which he was buying and selling all of the time. He became Montana's leading figure in sheep trailing although he shipped most of his bands from Oregon as far as Great Falls. As a boy, he and a schoolmate went all the way to Oregon and trailed a flock back to Beatrice, but this took too much time to suit him

and the money turnover was too slow. Hence he transferred his operations to the railroad as soon as he could. In addition to Roy Clary, two of his most successful associates were Thomas Chamberlain and Donald Wilson.



R. A. MARTIN, Harlowton, Montana, as a ten-year-old boy, rode his white pony from Red Bluff, California, to the Yellowstone Valley in Montana trailing forty-two hundred head of sheep belonging to his father. They traveled from May until October, following the route across northern California and Nevada, and northwest Utah into Idaho, by the Little Malad and Oneida to the Port Neuf and Snake. In California they deviated from the regular trail by going down Hat Creek from Hell's Half Acre until they struck Pit River, passing up it to the modern town of Pit River and cutting across to Willow Creek and out over the Madeline Plains (where they found millions of Mormon crickets) to Terro. Several incidents impressed Martin. At Tuscarora in Nevada they were trying to refine ore by hauling sage up the mountain for fuel. When they struck the Port Neuf it was covered with beaver dams. At the bend of this river where the trails to Montana and Wyoming separated they saw flock of ten thousand California sheep being driven to Colorado by "Jim" and "Newt" Howell of Red Bluff. They crossed Camas Meadows, Monida Pass, Fort Harkness, Horse Prairie, etc., and Virginia City. At Bozeman his father sold two thousand head to Captain Russell of Fort Keogh, and trailed the remainder to Rapids, below Columbus, on the Northern Pacific Railway. It was a very bad winter, but his father had purchased five hundred tons of hay from William Tucker, and their losses were relatively light. However, they had to corral the flock every night to protect it against timber wolves, and the next spring scab got into their flock from an old ewe that dropped out of an Oregon trail band. They moved up to Valley Creek, about twelve miles, in the spring and had one of the first flocks in the Lake Basin.



L. L. ORMSBY came from Pennsylvania to Central City, Nebraska, in 1876 with his father, E. W. Ormsby. In 1882, they ran a small band of sheep on the range near Big Spring in the western part of the state. In the winter of 1883-84 he went to Oregon, and purchased a large band of sheep in

Oregon, Nevada, southern Idaho, and northern Utah. He drove these back to Central City for feeding. For seventeen years he continued active operation on the trail. The largest number he ever drove in one season was thirty-five thousand head. The severe winter of 1888-89 he contracted to purchase five thousand head from Joe Rogers and eighteen hundred from J. D. Wood, both of Idaho. He became isolated in a storm and nearly lost his life from frostbites and hunger. Mrs. Wood, mother of Frank Hagenbarth, long-time president of the National Wool Growers' Association, saved his life and nursed him back to health.

While Ormsby was still a young man, Jesse James, the noted outlaw, was employed by his father. A few years later horse stealing was rampant in the vicinity of Julesburg and Big Spring. Seeing James on the street, the elder Ormsby took him to his corral and showed him twenty fine horses he had accumulated. James admitted their quality and the elder Ormsby told him to look at them closely, because he knew James' gang was stealing horses, and if they were taken, he would hold Jesse personally responsible. The horses were never molested.

In 1889 while driving a band eastward, Ormsby was invited to join a few men eating their lunch at a cattle camp on the North Platte near the mouth of the Sweetwater. His sheep were "nooning" so he rode over, unsaddled his horse to graze and ate with them. After a nice visit he resaddled his horse and was about to mount when they all "pulled down" on him with their guns. When he asked for the reason they inquired if he had not heard of the hanging of "Cattle Kate" and the shooting of Jim Averill. They explained what had happened, said posses were out, that they were under suspicion, and told him he could not leave until he identified himself. Fortunately, a letter of credit and a letter from his mother which he received at South Pass City proved adequate. After being warned to keep his mouth closed he was allowed to leave, and did not mention the affair except to his Casper banker, Alex Cunningham. This was fortunate, as the man who informed the authorities concerning them, dropped out of sight, and was never heard of locally again. In seventeen years he drove between a quarter and a third of a million sheep east, operated ranches in Idaho and feedlots in Nebraska, and traded in thousands of breeding sheep in addition.



The firm of OTERO, SELLAR, AND COMPANY was founded in 1864 by MIGUEL A. OTERO (father of Governor Otero) and Jacob Sellar. They commenced business at Fort Harker in 1867. They then moved successively to Ellsworth, Hays City, Sheridan, and Wallace, Kansas, and to Kit Carson, Colorado, on the westward building Kansas Pacific. In 1873 they left Kit Carson for Granada on the Arkansas River and the new route of the Sante Fe. M. A. Otero, Sr., drove a golden spike on the first rail laid in New Mexico in 1878, when the Santa Fe started going down the New Mexico side from Raton Pass. The firm went to Las Vegas in 1878, but was liquidated in 1881. The firm of Gross, Blackwell, and Company was organized from this business. M. A. Otero, Sr., established the San Miguel National Bank at Las Vegas and became president. The cashier was Jacob Gross, and Governor M. A. Otero, Jr., succeeded him as cashier in the mercantile company. The members of the new firm were Gross, Blackwell, and Alex Stockton, but later Harry Kelly (who was originally a clerk) bought out Stockton. In 1883 Kelly also purchased Blackwell's interest and the firm became Gross, Kelly, and Company. Clarence Iden was president through 1938, when he became chairman of the board, and Dan Kelly became president. Their business was based on traders who came up from Chihuahua, bringing hides, pelts, wool, etc., and exchanging them for shepherds' supplies. Throughout their existence, the successive companies never financed sheepmen nor operated partnerships with them, but supplied them always on a cash basis.



CHARLES SCHREINER was born in Riguewihr, Alsace, France, February 22, 1838. Emigrating with his parents, brothers, and sisters to San Antonio, Texas, in 1852, he stepped out on his own at the age of sixteen (early 1855), enlisting in the Texas Rangers and serving for a year with honor. In 1858 he married and established a ranch on the Upper Guadalupe in Kerr County, where he divided his time between raising his flocks and fighting Indians. He joined the Confederate Army in 1861, was commissioned an officer and served for the four years with great distinction. He reached his ranch in April, 1865, with a single five-dollar gold piece, having walked the seventy-five miles from San Antonio to save it. In 1869 he entered the mercantile business with

August Faltin in Kerrville, and was soon involved in outfitting sheep, goat, and cattle crews, extending credit to them as part of the business. In the mid-seventies he bought out his partner, and established a private bank, where he undertook livestock financing on a large scale. He was elected County and District Clerk in 1866 and served as County Treasurer for thirty years beginning in 1868. He gradually developed a banking business in connection with loans during the early eighties. By the opening of this century his fortune had developed to a point where he could do philanthropic work. He donated a road district to Kerr County—\$150,000 for its road maintenance fund. In 1918 he gave \$250,000 for 140 acres of land for a boys' preparatory school near Kerrville on the north bank of the Guadalupe River, where he had located sixty-one years before. He died in 1921.



The SYLVESTERS were typical stockmen of the days of the westward expansion. In 1823, when F. Sylvester was two years old, his father left Bath, Maine, with his family, traveled west of Buffalo by boat, and landed near Fort Dearborn at the mouth of the Chicago River. The swampy ground disgusted the elder Sylvester, so he worked his family westward to Galena, and thence to the agricultural lands of southwestern Wisconsin. In Iowa County, F. Sylvester was reared and married, and in 1870 he struck out on his own account, going to Boone County, Iowa. Here he fed cattle for market for twenty-one years, then moved with his six sons to the San Luis Valley, this being the last of his westward migrations.



ROBERT TAYLOR was born near Hawick, Scotland, December 9, 1847, and went out to Pennsylvania when twenty-years old. In 1871 or 1872 he took ship for Nicaragua, crossed on foot, transshipped to San Francisco, and arrived in California, where he worked for a short time as foreign correspondent for a Scottish newspaper. Returns were small so he and a Scotch friend, Kenneth MacDonald, went to Red Bluff where they started shearing sheep. From his savings, Taylor purchased a small band of sheep. Prices were high, his credit limited, and the panic of 1873 closed him out. Nothing daunted, he hired out as an employee

with other sheepmen and by 1880 had sufficient credit rating to start trailing a band to Wyoming. His name first appeared on the Carbon County assessment rolls in 1883. The winter of 1884 nearly dealt him a death blow. He had driven several thousand sheep to Montana and lost over five thousand head in an early spring storm. (Letter, Grace Taylor, Cheyenne, Wyoming, June 27, 1941.) However, a Rawlins banker named France financed him with another flock, and in the good market of 1885 he sold enough wool to pay off his entire indebtedness. After this, his progress was steady and his growth consistent. His headquarters were transferred to Natrona County in 1889 and to Abbott, Nebraska, in 1890.

In early days it was his ambition to produce a 100,000-pound wool clip, but when he passed this mark he aimed at a goal of 100,000 ewes. Finally this second ambition was attained and the goal surpassed. He attempted to develop a dual-purpose range type that would shear heavy but fine fleeces, and that would raise lambs large enough to yield a satisfactory carcass. For this purpose he selected a smooth Rambouillet, but became quite interested in crosses with the Lincoln, Border Leicester, Shropshire, and Hampshire. In his experience the Border Leicester proved more satisfactory than the Lincoln, because he obtained a finer fleece of greater density in the crossbreds. In his later years he concentrated his attention on the black-faces for market crosses.



KARL ALBERT ANTON VON SCHAUER was born in Verona, Italy, in 1831, the son of a Field Marshal in the Austrian Army. He came to Texas at the close of the Mexican War, and as a young man served in the cavalry in the American Army during the Indian Wars. While stationed at Fort Sumner, New Mexico, in the late fifties, he conceived the idea of driving a band of sheep from California and settling on what was then the Texas frontier, at the site of the modern town of Ozona. His death occurred there in 1909. During the early days of the Chicago livestock market he shipped several cars of muttons to Chicago. A railroad strike prevented delivery at the stockyards and he unloaded them on the outskirts of the city and drove them to the market in small bunches of two to three hundred head.

L. E. VIVIAN carried forward two pioneer southern Wyoming outfits by a curious combination of circumstances. Vivian came to Rawlins in the mid-eighties to work for a cattle outfit owned by Bennett and Hunter. Then he worked for I. C. Miller with a band of sheep. Finally he started in the cattle business for himself. In the spring of 1892, George Ferris lambed near Vivian's headquarters and Vivian spent endless hours chasing ewes out of his garden. Ferris assured him there was money in sheep production so he purchased a band that fall, selling cows at \$14 per head, calves thrown in, and buying old ewes at \$1 per head, and lambs at \$1.50. To make up the balance he borrowed money at 1½ per cent per month, and the so-called "Cleveland" panic hit them. George Seeley had purchased a similar number of sheep from Ferris, so Vivian and he formed a partnership, throwing the two bands together. Seeley furnished the herder and his "grub," Vivian furnished the team and wagon and acted as camp mover. They sold their wool in 1893 for 5½ cents per pound and their lambs for \$1.25 per head. The partnership lasted six years, and when dissolved each had a clear title to forty-four hundred sheep.

In 1894 Robert Jackson, a butcher from Old Carbon, loaned Vivian enough money to buy three thousand ewe lambs of "Boney" Ernest (famous pioneer character of Wyoming) at \$1.30 per head. He sold his wool in 1895 at eight cents per pound, paid his debts and got into position to grow. When T. A. Cosgriff died in 1915, Vivian was appointed to settle the estate, and when everything was completed there still remained eighteen hundred ewes and twenty thousand acres. Half of the land was sold to the Producers' and Refiners' Oil Corporation and Vivian bought the ewes and the remaining land. This tied the Cosgriff flock in with the descendants of the Ferris flock, and gave Vivian range that had been scenes of travel for the old trail herds that crossed the Shirley Basin en route to Colorado and the East.



CAPTAIN CHARLES WARREN was born at Aurora, New York, May 30, 1840, but was educated in the public and high schools of Lee, Massachusetts. He made a brilliant record during the Civil War, serving both in the Infantry and the Field Artillery.

He was a cousin of Senator Francis E. Warren of Cheyenne, and his wife, Ida M. Warren, was a cousin both of himself and Senator Warren, her home having been in Pittsfield, Massachusetts. For three or four years after locating in Fort Collins, Captain Warren was engaged in the lumber trade, but in 1890 he entered the milling business. In 1896 he retired from the latter and formed the Warren Commercial Company, at the head of whose affairs he remained until his death May 8, 1898. His son, N. C. Warren, developed banking interests as well. "Nate" was a member of the Colorado Senate for many years and was Republican candidate for Governor three times—unfortunately in years of national Democratic majorities.



FRANCIS E. WARREN (1844–1929) was one of the outstanding characters of the western sheep industry. Born in Massachusetts, he served with troops from that state throughout the Civil War. For nearly three years thereafter he was employed as superintendent on George Plunkett's Stock Farm near Hinsdale, Massachusetts, in the Brookfield region. Drifting west in 1868 he secured employment as a construction boss on the newly-building Chicago, Rock Island, and Pacific Railroad in Iowa. A fellow townsman of his in Massachusetts, Amasa R. Converse, had previously settled in Cheyenne, establishing a furniture and crockery store, and he offered employment to young Warren as a clerk. The latter accepted, and after a period of typical Yankee frugality, invested his savings in a half-interest in the store. The firm became known as Converse and Warren and by 1872 was in the sheep business. Warren gradually assumed other

partnerships and finally developed one of the largest sheep operations in the West. He was territorial governor of Wyoming, its first senator (a position he occupied until death), and president of the National Wool Growers' Association for many years. In the latter capacity he transferred the office of the Association from the East to the West. He was the author, or principal instigator, of legislation protective to the sheep growing industry for over a quarter of a century.



JOHN D. WOODRUFF came to Denver from Illinois in the early sixties, and in 1865 appeared at Fort Laramie where he served as a guide and scout for the Army, doing a little trapping on the side. In the early seventies he went into the cattle business, several of his cattle brands being reported from the Wind River, Owl Creek, and Big-horn Basin districts as early as 1873. On the grazing leases secured from the Shoshonis he established a ranch, later known as the Embar under the ownership of Colonel J. L. Torrey, west of Thermopolis and on the south slope of the Owl Creek Mountains. An interesting bit of sentiment on his part was the purchase, in 1921, of 440 acres of fine grazing land which, according to the Shoshoni Enterprise that year, was the location of his first sheep camp in the days when it was part of the Indian reservation. Shortly before his death in 1925, he stated that he enjoyed the privilege of living during the most significant era in America, for he saw the close of the range phase of the Old West, the last of the Indian fighting, and the advent of the epoch-making American inventions.

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